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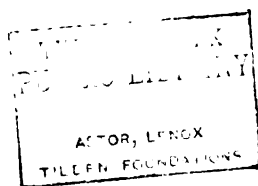
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PRAIRIE
AND
ROCKY MOUNTAIN ADVENTURES,
OR,
LIFE IN THE WEST.

TO WHICH IS ADDED
A VIEW OF THE STATES AND TERRITORIAL REGIONS
OF OUR

WESTERN EMPIRE:

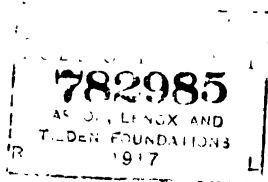
EMBRACING
HISTORY, STATISTICS AND GEOGRAPHY,
AND DESCRIPTIONS OF
THE CHIEF CITIES OF THE WEST.

BY JOHN C. VAN TRAMP.

COLUMBUS, O.:
PUBLISHED BY SEGNER & CONDIT.

1868.

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INTRODUCTORY.

THE publishers herewith present to the public a volume, historical and descriptive, of our Great Western Empire. Its plan and scope are such as must commend it to every patriotic and intelligent American—to every citizen who loves his country, and takes pride in contemplating its vast extent and illimitable resources. The work is divided into two nearly equal parts, the first containing historical sketches of the early explorations and settlements in the West, and the second developing the progress of particular States and Territories by combining historical with statistical and geographical facts.

The first part gives, in a general view, the early explorations and pioneer settlements made; the courage, perseverance, and heroism displayed, the sufferings endured, and the dangers and perils encountered, in adding to our original American Republic, and bringing into our domain of civilization and progress the great Mississippi Valley, embracing the vast region lying between the Alleghanies and the Rocky Mountains, and extending from the Gulf of Mexico to our great North-western lakes and the British Possessions; and in annexing to all this the great stretch of territory lying west of these seeming barriers—the Rocky Mountains—and bordering on the Pacific Ocean. This is what we denominate in this work "Our Western Empire." But in fact it constitutes the great body of our nation's vast domain. Without it, how insignificant in territorial extent, and in natural resources, would seem the strip of country east of the Alleghany Mountains on the Atlantic coast, and South-east on the Gulf of Mexico. A history and description of the West, in this enlarged view, may almost be said to be a history and description of the American Union.

The history of the Great West opens with the discovery of the Mississippi River, in 1541, by Ferdinand De Soto, and the first explorations by adventurous fur-traders, and the founding of missions by French Jesuits a century afterward, in the region around Lake Huron. A rapid and graphic delineation is then given of the explorations and first settlements in the Mississippi Valley by the French; their explorations of the Ohio river; the first English settlement in Ohio; the military exploits of the youthful George Washington; the French and Indian war; the relinquishment by France of her pretensions to dominion on this continent; the possession by the English of the

country east of the Mississippi; John Law's celebrated Mississippi scheme, its operations and results; Pontiac's bloody war; cession of lands by the Indians, and the peace that followed; the rapid settlement of the West and North-west; the adventures, perils, and heroic perseverance of Daniel Boone and other pioneers; the claims of Eastern States to Western lands, and their cession to the United States; the first settlements in Kentucky, Ohio, and Tennessee; the successive defeats of Generals Harmar and St. Clair by the Indians, and the retrieving of these disasters by General Wayne; the acquisition in 1803 of the extensive region then called Louisiana, and the formation of new Territories, and the admission of new States in the West, closing with the organization of the Territories of Kansas and Nebraska in 1854.

Striking and startling incidents of personal adventure, toil, and suffering, and of savage captivities, cruelties, and massacres in the first settlement of Kentucky and Ohio, follow, with a full account of the early history of the latter State, including a sketch of the introduction of steamboats on the Ohio and Mississippi rivers; Samuel Brady and Adam Poe's famous adventures with the Indians; a graphic description of scenery on the Ohio from Audubon, the naturalist; incidents in the early history of Tennessee, and scientific and interesting explorations and descriptions of the mounds and other antiquities in the Mississippi Valley, especially of the mounds at Natchez, and in the American Bottom in Illinois.

A separate section is devoted to the Mississippi River, opening with Schoolcraft's account of its extreme source, and a description of the beautiful lakes near its origin, followed by the famous Indian legend of the Maiden's Rock; a delineation of St. Anthony's and Brown's Falls, and of the Lower Mississippi, with Audubon's pleasant sketch of the Virginia squatter upon its banks; a glance at the keel-boatmen that navigated its waters in early times, with characteristic incidents; the earthquake in 1811, and destruction of New Madrid on the Mississippi.

Missouri receives in this part of the work a large share of attention. Its first settlement by the French is described; its cession by France to Spain, with incidents in its early history; its retrocession by Spain to France, and its cession by the latter to the United States; its rapid increase in population and in the development of its great resources; its admission as a State in 1820; its mineral and other natural wealth, especially its mines of lead, iron, and copper; the mineral wonders of Iron Mountain and Pilot Knob; its fine farming lands, and mild and salubrious climate.

The reader is next presented with sketches of the scenery in the Ohio and Mississippi valleys; the diversities of grand forests, hills, valleys, and plains, with glowing descriptions of the vast and magnificent prairies and their beautiful and varied scenery; an interesting account of the American bison, or buffalo, with Washington Irving's vivid description of a buffalo hunt; the burrowing owl graphically portrayed, and an entertaining sketch of a visit to an Indian village by Audubon in an adventure on a western prairie.

We pass next to a glance at Oregon and the fur trade in the North-west. Here we find detailed the first discovery of the mouth of the great Columbia River, the Mississippi of the Pacific region; the enterprise of John Jacob Astor, and the establishment, history, and progress of the Pacific Fur Company, and of the settlement at Astoria; the travels and researches of missionaries in the country around the mouth of the Columbia; the great natural curiosities along that river and its branches; a description of the Rocky Mountains and their wonders; the climate, the Indians, and the discovery of gold in Oregon, with travels, hunting, incidents, and adventures in that region in 1851.

Liberal space is accorded to an abridgment of Lieutenant Brewerton's narrative of his trip in 1848 from California over the mountains and through the Great American Desert, or intra-mountain basin, accompanied by the celebrated Kit Carson as guide and leader. The narrative is full of interesting personal adventures and incidents, giving an account of the famous *Jornada del Muerto*, or Journey of Death; of Bill Williams, the noted adventurer in Lower California; of the Digger Indians, and the journeyings of the party among the Wasatch Mountains, in the country bordering on the Grand and Green Rivers, and in New Mexico.

Lovers of wild sports and of the romantic in natural history, will be interested and gratified with the chapter on *Prairie Hunting*. It gives descriptions of some of the most noted wild animals of the Western forests and regions, including the bison, or buffalo, the elk, the deer, the panther, northern lynx, the black and grizzly bear, the wolf, etc. The whole is enlivened by entertaining stories, anecdotes, and romantic adventures in traveling and hunting.

Under the caption of "*Red River of the North*," an interesting account is given of the rivalry between the famous Hudson Bay and North-west Companies; the Earl of Selkirk's attempt to establish a colony on the Red River; the breaking up of the settlement, at different times by the North-west Company; its re-establishment, and repeated disasters from famine, cold, high water, and bad government till its permanent establishment in 1826. This thrilling narrative is closed with an amusing sketch of abortive speculations in buffalo wool, sheep's wool and tallow; of buffalo hunting by the "plain hunters," as they are called, and a pleasant portraiture of a vagabond half-breed hunter in the person of Baptiste l'Esprit.

Passing now to the Pacific coast, we look in upon "*California and its Mines*," and have a brief history of the country, beginning with the planting of Spanish colonies upon its shores, and closing with its acquisition by the United States, followed by the discovery of gold in 1848 at Sutter's Mill; the development of the mines and the opening up of inexhaustible sources of wealth; the rapid tide of emigration to the new mining centers, and the admission of the Golden State in 1850, with a general description of its rivers and streams of water, its varieties of climate, its mountain ranges and valleys, its forest trees, soil, and productions, its geological features and "gold diggings."

Considerable space is allotted to a long and valuable extract from the

speech of Thomas H. Benton, in Congress, in January, 1855, on the subject of the Pacific Railroad, advocating what was called the great central route for the road, and giving grand and graphic outlines of the general features of the regions between Missouri and California, according to the researches of Fremont and other explorers, closing with an eloquent and patriotic appeal for the construction of the great thoroughfare across the continent, which should ring in the ears of the American people and their rulers till the road is completed and in running order.

The Mormons now claim attention. A lively, condensed, and entertaining narrative traces the rise and progress of this modern politico-ecclesiastical movement, embracing a biographical sketch of its founder, Joseph Smith; his pretended discovery of the "Golden Bible;" the early missionaries and apostles of the Mormon sect; their preaching and success; the organization of the Mormon Church; the settlement at Kirtland, Ohio; removal to Jackson County, Missouri; the troubles and persecutions the "Saints" endured; their migration to Hancock County, Illinois; the founding of the city of Nauvoo, and the building and consecration of the Temple; formation of the Nauvoo Legion, and the civil war that ensued; the death of the Mormon Prophet at the hands of a mob, and the exodus of the "Latter Day Saints" out of Illinois and Missouri over desert plains and frowning mountains to the valley of the Great Salt Lake, and their reorganization under the leadership of Brigham Young, then and now the supreme head of the Mormon Church.

The interesting and important explorations of John C. Fremont, in 1842, were given in his report of the famous expedition to the Rocky Mountains and the South Pass. This is followed by his report of the expedition in 1843, to examine the line of travel between Missouri and the country bordering on the Columbia, as well as the entire region between the Rocky Mountains and the Pacific Ocean. These reports are replete with interesting details and descriptions, which every one should read who desires an intimate acquaintance with the vast regions which these expeditions traverse.

The second part of our work gives a minute and detailed description of the country north of 35° of latitude, lying east of and bordering on the Mississippi River, including, also, the States of Indiana and Michigan, and of the whole of our great national domain west of the Mississippi and extending to the Pacific Ocean, with the exception of the small fraction in the north-east corner included in the State of Louisiana. The whole of this vast region, except the country reserved for the Indians, and called the Indian Territory, is now organized into States and Territories. These States and Territories are taken up and described separately—the States in the order of their admission into the Union, and the Territories in the order of their organization. A minute and detailed geographical, statistical, and historical account is given of each, embracing, in general, its boundaries and position; its geology and minerals; its lakes and rivers; the objects of interest to the traveler and tourist; the forest trees and wild animals; the climate, soil,

productions, and agricultural statistics; manufactures and commerce; the state of public education; the counties and county towns, and the population of each county; the population of the State or Territory, and the aggregate vote cast at important elections; a description of the principal cities and towns; the government and internal improvements, and such other matters as have been deemed of general and permanent interest. In making up these details, official documents and the latest and best authorities have been consulted.

Wherever any thing has been found in the history or features of any particular State, of special interest or importance, and not coming under any of the general heads alluded to, such matter has been incorporated and made part of the general description. We specify some instances of this:

In the account given of Michigan, the Lake Superior region, its scenery, climate, soil, and productions, with its geological features and great mineral wealth, developed and in prospect, are particularly set forth, together with a description of Lake Huron, taken from Appleton's American Cyclopaedia. Under the head of Wisconsin, is a description of Lake Michigan, from the same source.

California's mines and mining, its wine-making, and big trees afford topics of interest, and are treated of at considerable length, while the romantic and wonderful valley of the Yosemite is described in the language of an accurate, scientific, and admiring observer.

We have embraced in Minnesota's history a full and reliable account of the terrible Indian massacre and war of 1862.

The new State of Nevada, since the great rush, a few years ago, to what were then known as the Washoe mines, has been a point of great attraction. We have, therefore, been diffuse in its description, giving the statistics of counties, so far as the same appeared in the latest accessible official reports. The Nevada mines, and their development, are treated of at length, and with minuteness, particularly the discovery and working of the great Conestock Lode, or ledge, which may almost be said to constitute the State.

Such changes have been made, from time to time, in the boundaries and area of the Territories, that it has been found impossible to follow out fully, in their descriptions, the plan generally adopted in regard to the States; but, so far as practicable, that plan has been rigidly adhered to in the case of the Territories. Some of the striking peculiarities that have been specially noted are these:

As part of the history of Utah, and by far the most interesting and important, we have continued the account of the Mormon organization, from its first location in the Great Salt Lake Valley, to the present time, with a detailed statement of the present novel politico-ecclesiastical government of the Mormon Church.

The Pike's Peak region, the original scene of attraction for explorers and gold-seekers, is specifically and minutely described in the account given of Colorado, with a most interesting, lively, and graphic narrative of a tour through Colorado in the summer of 1865, and a sketch of the development, working, and richness of its gold mines.

The mines, mining operations, and great mineral resources of Idaho are set forth in so full and complete a manner that the inquiring reader can not fail to be interested and gratified.

Arizona is deserving of far more attention than it has received from the people and Government of the United States. Considerable space has, therefore, been allotted to the history and description of this new and interesting Territory. It will be found full of important and instructive details. Striking, startling, personal adventures, and incidents are related, and among them the story of the Outman family—a tale of massacre by, and of captivity among, the Bedouins of the south-west—the Apache Indians. Interesting accounts are given of the Pinio and other Indians, of remarkable ancient ruins, the principal mines in the Territory, and its great agricultural and mineral resources and promise.

The volume closes with an article on the Pacific Railroad, extracted from the excellent work of Samuel Bowles, of the Springfield (Massachusetts) Republican, entitled "Across the Continent," and published in 1865. The article on the great theme of the day—the railroad to the Pacific—is entertaining and instructive, and of great and absorbing interest.

By way of an appendix, we have added to the work an accurate copy of the Constitution of the United States, as originally adopted, with the amendments made to that instrument, from time to time, including the recent amendments proposed by Congress, and now (March, 1867) ratified by nearly the requisite number of States.

OUR WESTERN EMPIRE.

HISTORICAL SKETCH.

IN May, 1539, Ferdinand de Soto, the governor of Cuba, landed at Tampa Bay with six hundred followers. He marched into the interior, and on the 1st of May, 1541, discovered the Mississippi; being the first European who had ever beheld that mighty river.

Spain for many years claimed the whole of the country bounded by the Atlantic to the Gulf of St. Lawrence on the north, all of which bore the name of Florida. About twenty years after the discovery of the Mississippi, some Catholic missionaries attempted to form settlements at St. Augustine and its vicinity; and a few years later a colony of French Calvinists had been established on the St. Mary's, near the coast. In 1565 this settlement was annihilated by an expedition from Spain, under Pedro Melendez de Aviles, and about nine hundred French, men, women and children, cruelly massacred. The bodies of many of the slain were hung from trees, with the inscription, "*Not as Frenchmen, but as heretics.*" Having accomplished this bloody errand, Melendez founded St. Augustine, the oldest town by half a century of any now in the Union. Four years after, Dominic de Gourges, burning to avenge his countrymen, fitted out an expedition at his own expense, and surprised the Spanish colonists on the St. Mary's, destroying the ports, burning the houses, and ravaging the settlements with fire and sword, finishing the work by also suspending some of the corpses of his enemies from trees, with the inscription, "*Not as Spaniards, but as murderers.*" Unable to hold possession of the country, De Gourges retired to his fleet. Florida, excepting for a few years, remained under the Spanish crown, suffering much in its early history from the vicissitudes of war and piratical incursions, until 1819, when, vastly diminished from its original boundaries, it was ceded to the United States, and in 1845 became a State.

In 1535 James Cartier, a distinguished French mariner, sailed with an exploring expedition up the St. Lawrence, and taking possession of the country in the name of his king, called it "New France." In 1608 the energetic Champlain created a nucleus for the settlement of Canada by founding Quebec. This was the same year with the settlement of Jamestown, Virginia, and twelve years previous to that on which the Puritans first stepped upon the rocks of Plymouth.

To strengthen the establishment of French dominion, the genius of Champlain saw that it was essential to establish missions among the Indians. Up to this period "the far west" had been untried by the foot of the white man. In 1616 a French Franciscan, named Le Caron, passed through the Iroquois and Wyandot nations to streams running into Lake Huron; and in 1634, two Jesuits founded the first mission in that region. But just a century elapsed from the discovery of the Mississippi ere the first Canadian envoys met the savage nations of the northwest at the Falls of St. Mary's, below the outlet of Lake Superior. It was not until 1659 that any of the adventurous fur traders wintered on the shores of this vast lake, nor until 1660 that Rene Mesnard founded the first missionary station upon its rocky and inhospitable coast. Perishing soon after in the forest, it was left to Father Claude Allouez, five years subsequent, to build the first permanent habitation of white men among the northwestern Indians. In 1668 the mission was founded at the Falls of St. Mary's, by Dablon and Marquette; in 1670 Nicolas Perrot, agent for the intendant of Canada, explored Lake Michigan to near its southern termination. Formal possession was taken of the northwest by the French in 1671, and Marquette established a missionary station at Point St. Ignace, on the main land north of Mackinac, which was the first settlement in Michigan.

Until late in this century, owing to the enmity of the Indians bordering the Lakes Ontario and Erie, the adventurous missionaries, on their route west, on pain of death, were compelled to pass far to the north, through "a region horrible with forests," by the Ottawa and French Rivers of Canada.

As yet no Frenchman had advanced beyond Fox River, of Winnebago Lake, in Wisconsin; but in May, 1673, the missionary Marquette, with a few companions, left Mackinac in canoes, passed up Green Bay, entered Fox River, crossed the country to Wisconsin, and, following its current, passed into and discovered the Mississippi; down which they sailed several hundred miles, and returned in the autumn. The discovery of this great river gave great joy in New France, it being "a pet idea" of that age that some of its western tributaries would afford a direct route to the South Sea, and thence to China. Monsieur La Salle, a man of indefatigable enterprise, having been several years engaged in the preparation, in 1682 explored the Mississippi to the sea, and took formal possession of the country in the name of the King of France, in honor of whom he called it Louisiana. In 1685 he also took formal possession of Texas, and founded a colony on the Colorado; but La Salle was assassinated, and the colony dispersed.

The descriptions of the beauty and magnificence of the Valley of the Mississippi, given by these explorers, led many adventurers from the cold climate of Canada to follow the same route, and commence settlements. About the year 1680 Kaskaskia and Cahokia, the oldest towns in the Mississippi Valley, were founded. Kaskaskia became the capital of the Illinois country, and in 1791 a Jesuit college and monastery were founded there.

A peace with the Iroquois, Hurons, and Ottawas, in 1700, gave the

French facilities for settling the western part of Canada. In June, 1701, De la Motte Cadillac, with a Jesuit missionary and a hundred men, laid the foundation of Detroit. All of the extensive region south of the lakes was now claimed by the French, under the name of Canada, or New France. This excited the jealousy of the English, and the New York legislature passed a law for hanging every Popish priest that should come voluntarily into the province. The French, chiefly through the mild and conciliating course of their missionaries, had gained so much influence over the western Indians, that, when a war broke out with England in 1711, the most powerful of the tribes became their allies; and the latter unsuccessfully attempted to restrict their claims to the country south of the lakes. The Fox nation, allies of the English, in 1713 made an attack upon Detroit, but were defeated by the French and their Indian allies. The treaty of Utrecht, this year, ended the war.

By the year 1720, a profitable trade had arisen in furs and agricultural products between the French of Louisiana and those of Illinois, and settlements had been made on the Mississippi, below the junction of the Illinois. To confine the English to the Atlantic coast, the French adopted the plan of forming a line of military posts, to extend from the great northern lakes to the Mexican Gulf; and, as one of the links of the chain, Fort Chartres was built on the Mississippi, near Kaskaskia; and in its vicinity soon flourished the villages of Cahokia and Prairie du Rocher.

The Ohio at this time was but little known to the French, and on their early maps was but an insignificant stream. Early in this century their missionaries had penetrated to the sources of the Allegany. In 1721, Joncaire, a French agent and trader, established himself among the Senecas at Lewistown, and Fort Niagara was erected, near the falls, five years subsequent. In 1735, according to some authorities, Post St. Vincent was erected on the Wabash. Almost coeval with this was the military post of Presque Isle, on the site of Erie, Penn., and from thence a cordon of posts extended on the Allegany to Pittsburg, and from thence down the Ohio to the Wabash.

In 1749 the French regularly explored the Ohio, and formed alliances with the Indians in Western New York, Pennsylvania, and Virginia. The English, who claimed the whole west to the Pacific, but whose settlements were confined to the comparatively narrow strip east of the mountains, were jealous of the rapidly increasing power of the French in the west. Not content with exciting the savages to hostilities against them, they stimulated private enterprise by granting six hundred thousand acres of choice land on the Ohio to the "Ohio Company."

By the year 1751 there were in the Illinois country the settlements of Cahokia, five miles below the site of St. Louis; St. Philip's, forty-five miles farther down the river; St. Genevieve, a little lower still; and on the east side of the Mississippi, Fort Chartres, Kaskaskia, and Prairie du Rocher. The largest of these was Kaskaskia, which at one time contained nearly three thousand souls.

In 1748 the Ohio Company, composed mainly of wealthy Virginians, dispatched Christopher Gist to explore the country, gain the good will

of the Indians, and ascertain the plans of the French. Crossing overland to the Ohio, he proceeded down it to the Great Miami, up which he passed to the towns of the Miamies, about fifty miles north of the site of Dayton. The next year the company established a trading post in that vicinity, on Loramie's Creek, the first point of English settlement in the western country; it was soon after broken up by the French.

In the year 1753, Dinwiddie, governor of Virginia, sent George Washington, then twenty-one years of age, as commissioner, to remonstrate with the French commandant, who was at Fort le Bœuf, near the site of Erie, Penn., against encroachments of the French. The English claimed the country by virtue of her first royal charters, the French by the stronger title of discovery and possession. The result of the mission proving unsatisfactory, the English, although it was a time of peace, raised a force to expel the invaders from the Ohio and its tributaries. A detachment under Lieutenant Ward erected a fort on the site of Pittsburgh; but it was surrendered shortly after, in April 1754, to a superior force of French and Indians under Contrecoeur, and its garrison peaceably permitted to retire to the frontier post of Cumberland. Contrecoeur then erected a strong fortification at "the fork," under the name of Fort Duquesne.

Measures were now taken by both nations for the struggle that was to ensue. On the 28th of May, a strong detachment of Virginia troops, under Washington, surprised a small body of French from Fort Duquesne, killed its commander, M. Jumonville, and ten men, and took nearly all the rest prisoners. He then fell back and erected Fort Necessity, near the site of Uniontown. In July he was attacked by a large body of French and Indians, commanded by M. Villiers, and after a gallant resistance, compelled to capitulate, with permission to retire unmolested, and under the express stipulation that further settlements or forts should not be founded by the English west of the mountains for one year.

On the 9th of July, 1755, General Braddock was defeated within ten miles of Fort Duquesne. His army, composed mainly of veteran English troops, passed into an ambushade formed by a far inferior body of French and Indians, who, lying concealed in two deep ravines each side of his line of march, poured in upon the compact body of their enemy volleys of musketry, with almost perfect safety to themselves. The Virginia provincials under Washington, by their knowledge of border warfare and cool bravery, alone saved the army from complete ruin. Braddock was himself mortally wounded by a provincial named Fausett. A brother of the latter had disobeyed the orders of the general, that the troops should not take positions behind the trees, when Braddock rode up and struck him down. Fausett, who saw the whole transaction, immediately drew up his rifle and shot him through the lungs, partly from revenge and partly as a measure of salvation to the army, which was being sacrificed to his headstrong obstinacy and inexperience.

The result of this battle gave the French and Indians a complete ascendancy on the Ohio, and put a check to the operations of the English, west of the mountains, for two or three years. In July, 1758, General

Forbes, with seven thousand men, left Carlisle, Penn., for the west. A corps in advance, principally of Highland Scotch, under Major Grant, were, on the 13th of September, defeated in the vicinity of Fort Duquesne, on the site of Pittsburg. A short time after, the French and Indians made an unsuccessful attack upon the advanced guard, under Colonel Boquet.

In November the commandant of Fort Duquesne, unable to cope with the superior force approaching under Forbes, abandoned the fortress, and descended to New Orleans. On his route he erected Fort Massac, so called in honor of M. Massac, who superintended its construction. It was upon the Ohio, within forty miles of its mouth, and within the limits of Illinois. Forbes repaired Fort Duquesne, and changed its name to Fort Pitt, in honor of the English prime minister.

The English were now for the first time in possession of the Upper Ohio. In the spring they established several posts in that region, prominent among which was Fort Burd, or Redstone Old Fort, on the site of Brownsville.

Owing to the treachery of Governor Lyttleton, in 1760, by which twenty-two Cherokee chiefs on an embassy of peace were made prisoners at Fort George, on the Savannah, that nation flew to arms, and for a while desolated the frontiers of Virginia and the Carolinas. Fort Loudon, in East Tennessee, having been besieged by the Indians, the garrison capitulated on the 7th of August, and on the day afterwards, while on the route to Fort George, were attacked and the greater part massacred. In the summer of 1761 Colonel Grant invaded their country, and compelled them to sue for peace. On the north the most brilliant success had attended the British arms. Ticonderoga, Crown Point, Fort Niagara, and Quebec were taken in 1759, and the next year Montreal fell, and with it all of Canada.

By the treaty of Paris, in 1763, France gave up her claim to New France and Canada, embracing all the country east of the Mississippi from its source to the Bayou Iberville. The remainder of her Mississippi possessions, embracing Louisiana west of the Mississippi, and the Island of Orleans, she soon after secretly ceded to Spain, which terminated the dominion of France on this continent, and her vast plans for empire.

At this period Lower Louisiana had become of considerable importance. The explorations of La Salle in Lower Mississippi country were renewed in 1697 by Lemoine D'Iberville, a brave French naval officer. Sailing with two vessels, he entered the Mississippi in March, 1698, by the Bayou Iberville. He built forts on the Bay of Biloxi, and at Mobile, both of which were deserted for the Island of Dauphine, which for years was the head-quarters of the colony. He also erected Fort Balize, at the mouth of the river, and fixed on the site of Fort Rosalie; which latter became the scene of a bloody Indian war.

After his death, in 1706, Louisiana was but little more than a wilderness; and a vain search for gold, and trading in furs, rather than the substantial pursuits of agriculture, allured the colonists, and much time was lost in journeys of discovery, and in collecting furs among distant

tribes. Of the occupied lands, Biloxi was a barren sand, and the soil of the Isle of Dauphine poor. Bienville, the brother and successor of D'Iberville, was at the fort on the delta of the Mississippi, where he and his soldiers were liable to inundations, and held joint possession with mosquitoes, frogs, snakes, and alligators.

In 1712 Antoine de Crozat, an East India merchant, of vast wealth, purchased a grant of the entire country, with exclusive right of commerce for sixteen years. But in 1717, the speculation having resulted in his ruin, and to the injury of the colonists, he surrendered his privileges. Soon after, a number of other adventurers, under the name of the Mississippi Company, obtained from the French Government a charter which gave them all the rights of sovereignty, except the bare title, including a complete monopoly of the trade and the mines. Their expectations were chiefly from the mines; and on the strength of a former traveler, Nicolas Perrot, having discovered a copper mine in the valley of St. Peter's, the directors of the company assigned to the soil of Louisiana silver and gold, and to the mud of the Mississippi diamonds and pearls. The notorious Law, who then resided at Paris, was the secret agent of the company. To form its capital, its shares were sold at five hundred livres each; and such was the speculating mania of the times, that in a short time more than a hundred millions were realized. Although this proved ruinous to individuals, yet the colony was greatly benefited by the consequent emigration, and agriculture and commerce flourished.

In 1719 Renault, an agent of the Mississippi Company, left France with about two hundred miners and emigrants, to carry out the mining schemes of the company. He bought five hundred slaves at St. Domingo, to work the mines, which he conveyed to Illinois in 1720. He established himself a few miles above Kaskaskia, and founded there the village of St. Philip's. Extravagant expectations existed in France of his probable success in obtaining gold and silver. He sent out exploring parties in various sections of Illinois and Missouri. His explorations extended to the banks of the Ohio and Kentucky Rivers, and even to the Cumberland valley in Tennessee, where, at "French Lick," on the site of Nashville, the French established a trading post. Although Renault was wofully disappointed in not discovering extensive mines of gold or silver, yet he made various discoveries of lead; among which were the mines north of Potosi, and those on the St. Francois. He eventually turned his whole attention to the smelting of lead, of which he made considerable quantities and shipped to France. He remained in the country until 1744. Nothing of consequence was again done in mining until after the American revolution.

In 1718 Bienville laid out the town of New Orleans, on the plan of Rochefort, France. Some four years after, the bankruptcy of Law threw the colony into the greatest confusion, and occasioned wide-spread ruin in France, where speculation had been carried to an extreme unknown before.

The expenditures for Louisiana were consequently stopped; but the colony had now gained strength to struggle for herself. Louisiana was then divided into nine cantons, of which Arkansas and Illinois formed each one.

About this time the colony had considerable difficulty with the Indian tribes, and were involved in wars with the Chickasaws and the Natchez. This later named tribe were finally completely conquered. The remnant of them dispersed among other Indians, so that that once powerful people, as a distinct race, was entirely lost. Their name alone survives as that of a flourishing city. Tradition related singular stories of the Natchez. It was believed that they emigrated from Mexico, and were kindred to the Incas of Peru. The Natchez alone, of all the Indian tribes, had a consecrated temple, where a perpetual fire was maintained by appointed guardians. Near the temple, on an artificial mound, stood the dwelling of their chief, called the Great Sun, who was supposed to be descended from that luminary, and all around were grouped the dwellings of the tribe. His power was absolute; the dignity was hereditary, and transmitted exclusively through the female line, and the race of nobles was so distinct that usage had moulded language into the forms of reverence.

In 1732 the Mississippi Company relinquished their charter to the king, after holding possession fourteen years. At this period Louisiana had five thousand whites and twenty-five hundred blacks. Agriculture was improving in all the nine cantons, particularly in Illinois, which was considered the granary of the colony. Louisiana continued to advance until the war broke out with England in 1755, which resulted in the overthrow of the French dominion.

Immediately after the peace of 1763, all the old French forts in the west, as far as Green Bay, were repaired and garrisoned with British troops. Agents and surveyors, too, were making examinations of the finest lands east and northeast of the Ohio. Judging from the past, the Indians were satisfied that the British intended to possess the whole country. The celebrated Ottawa chief, Pontiac, burning with hatred against the English, in that year formed a general league with the western tribes, and by the middle of May all the western posts had fallen, or were closely besieged by the Indians, and the whole frontier, for almost a thousand miles, suffered from the merciless fury of savage warfare. Treaties of peace were made with different tribes of Indians in the year following, at Niagara, by Sir William Johnson; at Detroit or vicinity, by General Bradstreet; and in what is now Coshocton county, Ohio, by Colonel Boquet; at the German Flats, on the Mohawk, with the Six Nations and their confederates. By these treaties extensive tracts were ceded by the Indians, in New York and Pennsylvania, and south of Lake Erie.

Peace having been concluded, the excitable frontier population began to cross the mountains. Small settlements were formed on the main routes, extending north towards Fort Pitt and south to the head waters of the Holston and Clinch, in the vicinity of southwestern Virginia. In 1766 a town was laid out in the vicinity of Fort Pitt. Military land warrants had been issued in great numbers, and a perfect mania for western land had taken possession of the people of the middle colonies. The treaty made by Sir William Johnson at Fort Stanwix, on the site of Utica, New York, in October, 1768, with the Six Nations and their confed-

erates, and those of Hard Labor and Lochaber, made with the Cherokees, afforded a pretext under which the settlements were advanced. It was now falsely claimed that the Indian title was extinguished east and south of the Ohio, to an indefinite extent, and the spirit of emigration and speculation in land greatly increased. Among the land companies formed at this time was the "Mississippi Company," of which George Washington was an active member.

Up to this period very little was known by the English of the country south of the Ohio. In 1754 James M. Bride, with some others, had passed down the Ohio in canoes, and, landing at the mouth of the Kentucky River, marked the initials of their names, and the date, on the barks of trees. On their return, they were the first to give a particular account of the beauty and richness of the country to the inhabitants of the British settlements. No further notice seems to have been taken of Kentucky until the year 1767, when John Finlay, an Indian trader, with others, passed through a part of the rich lands of Kentucky, then called by the Indians "*the Dark and Bloody Ground.*" Finlay, returning to North Carolina, fired the curiosity of his neighbors by the reports of the discoveries he had made. In consequence of this information, Colonel Daniel Boone, in company with Finlay, Stewart, Holden, Monay, and Cool, set out from their residence on the Yadkin, in North Carolina, May 1, 1769, and after a long and fatiguing march over a mountainous and pathless wilderness, arrived on the Red River. Here, from the top of an eminence, Boone and his companions first beheld a distant view of the beautiful lands of Kentucky. The plains and forests abounded with wild beasts of every kind; deer and elk were common; the buffalo were seen in herds, and the plains covered with the richest verdure. The glowing descriptions of these adventurers inflamed the imaginations of the borderers, and their own sterile hills and mountains beyond lost their charms when compared to the fertile plains of this newly-discovered Paradise in the West.

In 1770 Ebenezer Silas and Jonathan Zane settled Wheeling. In 1771, such was the rush of emigration to Western Pennsylvania and Western Virginia, in the region of Upper Ohio, that every kind of breadstuff became so scarce that, for several months, a great part of the population were obliged to subsist entirely on meats, roots, vegetables, and milk, to the entire exclusion of all breadstuffs; and hence that period was long after known as "*the starving year.*" Settlers, enticed by the beauty of the Cherokee country, emigrated to East Tennessee, and hundreds of families also moved farther south, to the mild climate of West Florida, which at this period extended to the Mississippi. In the summer of 1773 Frankfort and Louisville, Kentucky, were laid out. The next year was signalized by "Dunmore's war," which temporarily checked the settlements.

In the summer of 1774 several other parties of surveyors and hunters entered Kentucky, and James Harrod erected a dwelling, the first erected by whites in the country, on or near the site of Harrodsburg, around which afterwards arose "Harrod Station." In the year 1775 Colonel Richard Henderson, a native of North Carolina, in behalf of himself and

his associates, purchased of the Cherokees all the country laying between the Cumberland River and Cumberland Mountains and Kentucky River, and south of the Ohio, which now comprises more than half of the State of Kentucky. The new country he named *Transylvania*. The first legislature sat at Boonesborough, and formed an independent government, on liberal and rational principles. Henderson was very active in granting lands to new settlers. The legislature of Virginia subsequently crushed his schemes; they claimed the sole right to purchase lands from the Indians, and declared his purchase null and void. But as some compensation for the services rendered in opening the wilderness, the legislature granted to the proprietors a tract of land, twelve miles square, on the Ohio, below the mouth of Green River.

In 1775 Daniel Boone, in the employment of Henderson, laid out the town and fort afterwards called Boonesborough. From this time Boonesborough and Harrodsburg became the nucleus and support of emigration and settlement in Kentucky. In May another fort was also built, which was under the command of Colonel Benjamin Logan, and named Logan's Fort. It stood on the site of Stanford, in Lincoln county, and became an important post.

In 1776 the jurisdiction of Virginia was formally extended over the colony of Transylvania, which was organized into a county named Kentucky, and the first court was held at Harrodsburg in the spring of 1777. At this time the war of the revolution was in full progress, and the early settlers of Kentucky were particularly exposed to the incursions of the Indian allies of Great Britain, a detailed account of which is elsewhere given in this volume. The early French settlements in the Illinois country, now being in possession of that power, formed important points around which the British assembled the Indians, and instigated them to murderous incursions against the pioneer population.

The year 1779 was marked, in Kentucky, by the passage of the Virginia land laws. At this time there existed claims of various kinds to the western lands. Commissioners were appointed to examine and give judgment upon these various claims as they might be presented. These having been provided for, the residue of the rich lands of Kentucky were in the market. As a consequence of the passage of these laws, a vast number of emigrants crossed the mountains into Kentucky to locate land warrants; and in the years 1779, 1780, and 1781, the great and absorbing topic in Kentucky was to enter, survey, and obtain patents for the richest lands, and this, too, in the face of all the horrors and dangers of an Indian war.

Although the main features of the Virginia land laws were just and liberal, yet a great defect existed in their not providing for a general survey of the country by the parent state, and its subdivision into sections and parts of sections. Each warrant holder being required to make his own survey, and having the privilege of locating according to his pleasure, interminable confusion arose from want of precision in the boundaries. In unskilful hands, entries, surveys, and patents were piled upon each other, overlapping and crossing in inextricable confusion; hence, when the country became densely populated, arose vexatious law-

suits and perplexities. Such men as Kenton and Boone, who had done so much for the welfare of Kentucky in its early days of trial, found their indefinite entries declared null and void, and were dispossessed, in their old age, of any claim upon that soil for which they had periled their all.

The close of the Revolutionary war, for a time only, suspended Indian hostilities, when the Indian war was again carried on with renewed energy. This arose from the failure of both countries from fully executing the terms of the treaty. By it England was obliged to surrender the north-western posts within the boundaries of the Union, and to return slaves taken during the war. The United States, on their part, had agreed to offer no legal obstacle to the collection of debts due from her citizens to those of Great Britain. Virginia, indignant at the removal of her slaves by the British fleet, by law prohibited the collection of British debts, while England, in consequence, refused to deliver up the boats, so that they were held by her more than ten years, until Jay's treaty was concluded.

Settlements rapidly advanced. Simon Kenton having, in 1784, erected a block-house on the site of Maysville—then called Limestone—that became the point from whence the stream of emigration, from down its way on the Ohio, turned into the interior.

In the spring of 1783, the first court in Kentucky was held at Harrodsburg. At this period the establishment of a government independent of Virginia appeared to be of paramount necessity, in consequence of troubles with the Indians. For this object, the first convention in Kentucky was held at Danville, in December, 1784; but it was not consummated until eight separate conventions had been held, running through a term of six years. The last was assembled in July, 1790; on the 4th of February, 1791, Congress passed the act admitting Kentucky into the Union, and in April following she adopted a State Constitution.

Prior to this, unfavorable impressions prevailed in Kentucky against the Union, in consequence of the inability of Congress to compel a surrender of the north-west posts, and the apparent disposition of the Northern States to yield to Spain for twenty years the sole right to navigate the Mississippi to the Gulf of Mexico, the exclusive right to which was claimed by that power as being within her dominions. Kentucky was suffering under the horrors of Indian warfare, and having no government of her own, saw that that beyond the mountains was unable to afford them protection. When in the year 1786 several States in Congress showed a disposition to yield the right of navigating the Mississippi to Spain, for certain commercial advantages, which would inure to their benefit, but not in the least to that of Kentucky, there arose a universal voice of dissatisfaction; and many were in favor of declaring the independence of Kentucky, and erecting an independent government west of the mountains.

Spain was then an immense landholder in the west. She claimed all east of the Mississippi lying south of the 31st degree of north latitude, and all west of that river to the ocean.

In May 1787, a convention was assembled at Danville to remonstrate with Congress against the proposition of ceding the navigation of the

Mississippi to Spain; but it having been ascertained that Congress, through the influence of Virginia and the other southern states, would not permit this, the convention had no occasion to act upon the subject.

In the year 1787 quite a sensation arose in Kentucky, in consequence of a profitable trade having been opened with New Orleans by General Wilkinson, who descended thither in June, with a boat load of tobacco and other productions of Kentucky. Previously, all those who ventured down the river within the Spanish settlements had their property seized. The lure was then held out by the Spanish minister, that if Kentucky would declare her independence of the United States, the navigation of the Mississippi should be opened to her; but that never would this privilege be extended while she was a part of the Union, in consequence of existing commercial treaties between Spain and other European powers.

In the winter of 1788-9, the notorious Dr. Connolly, a secret British agent from Canada, arrived in Kentucky. His object appeared to be to sound the temper of her people, and ascertain if they were willing to unite with British troops from Canada, and seize upon and hold New Orleans and the Spanish settlements on the Mississippi. He dwelt upon the advantages which it must be to the people of the west to hold and possess the right of navigating the Mississippi; but his overtures were not accepted.

At this time settlements had been commenced within the present limits of Ohio. Before giving a sketch of these, we glance at the western land claims.

The claim of the English monarch to the Northwestern Territory was ceded to the United States by the treaty of peace, signed at Paris, September 3, 1783. During the pendency of this negotiation, Mr. Oswald, the British commissioner, proposed the River Ohio as the western boundary of the United States, and but for the indomitable, persevering opposition of John Adams, one of the American commissioners, who insisted upon the Mississippi as the boundary, this proposition would have probably been acceded to.

The states who owned western unappropriated lands under their original charters from British monarchs, with a single exception, ceded them to the United States. In March, 1784, Virginia ceded the soil and jurisdiction of her lands northwest of the Ohio. In September, 1786, Connecticut ceded her claim to the soil and jurisdiction of her western lands, excepting that part of Ohio known as the "Western Reserve," and to that she ceded her jurisdictional claims in 1800. Massachusetts and New York ceded all their claims. Besides these were the Indian claims, asserted by the right of possession. These have been extinguished by various treaties, from time to time, as the inroads of emigration rendered necessary.

The Indian title to a large part of the territory of Ohio having become extinguished, Congress, before settlements were commenced, found it necessary to pass ordinances for the survey and sale of the lands in the Northwest Territory. In October, 1787, Manasseh Cutler and Winthrop Sargeant, agents of the New England Ohio Company, made a large purchase of land, bounded south by the Ohio, and west by the Scioto River. Its settlement was commenced at Marietta in the spring

of 1788, which was the first made by the Americans within Ohio. A settlement had been attempted within the limits of Ohio, on the site of Portsmouth, in April, 1785, by four families from Redstone, Pennsylvania; but difficulties with the Indians compelled its abandonment.

About the time of the settlement of Marietta, Congress appointed General Arthur St. Clair governor, Winthrop Sargeant secretary, and Samuel Holden Parsons, James M. Varnum, and John Cleves Symmes judges in and over the Territory. They organized its government and passed laws, and the governor erected the county of Washington, embracing nearly the whole of the eastern half of the present limits of Ohio.

In November, 1788, the second settlement within the limits of Ohio was commenced at Columbia, on the Ohio, five miles above the site of Cincinnati, and within the purchase and under the auspices of John Cleves Symmes and associates. Shortly after, settlements were commenced at Cincinnati, and at North Bend, sixteen miles below, both within Symmes's purchase. In 1790 another settlement was made at Gallipolis by a colony from France — the name signifying city of the French.

On the 9th of January, 1789, a treaty was concluded at Fort Harmer, at the mouth of the Muskingum, opposite Marietta, by Governor St. Clair, in which the treaty, which had been made four years previous, at Fort M'Intosh, on the site of Beaver, Pennsylvania, was renewed and confirmed. It did not, however, produce the favorable results anticipated. The Indians, the same year, committed numerous murders, which occasioned the alarmed settlers to erect block-houses in each of the new settlements. In June, Major Doughty, with one hundred and forty men, commenced the erection of Fort Washington, on the site of Cincinnati. In the course of the summer General Harmer arrived at the fort with three hundred men.

Negotiations with the Indians proving unfavorable, General Harmer marched, in September, 1790, from Cincinnati with thirteen hundred men, less than one fourth of whom were regulars, to attack their towns on the Maumee. He succeeded in burning their towns; but in an engagement with the Indians, part of his troops met with a severe loss. The next year a larger army assembled at Cincinnati, under General St. Clair, composed of about three thousand men. With this force he commenced his march towards the Indian towns on the Maumee. Early in the morning of the 4th of November, 1791, his army, while in camp on what is now the line of Darke and Mercer counties, within three miles of the Indian line, and about seventy north from Cincinnati, were surprised by a large body of Indians, and defeated with terrible slaughter. A third army, under General Anthony Wayne, was organized. On the 20th of August, 1794, they met and completely defeated the Indians, on the Maumee River, about twelve miles south of the site of Toledo. The Indians, at length, becoming convinced of their inability to resist the American arms, sued for peace. On the 3d of August, 1795, General Wayne concluded a treaty at Greenville, sixty miles north of Cincinnati, with eleven of the most powerful northwestern tribes, in grand council

This gave peace to the west, of several years' duration, during which the settlements progressed with great rapidity. Jay's treaty, concluded November 19, 1794, was a most important event to the prosperity of the west. It provided for the withdrawal of all the British troops from the north-western posts. In 1796 the North-western Territory was divided into five counties. Marietta was the seat of justice of Hamilton and Washington counties; Vincennes, of Knox county; Kaskaskia, of St. Clair county; and Detroit, of Wayne county. The settlers, out of the limits of Ohio, were Canadian or Creole French. The head-quarters of the north-west army were removed to Detroit, at which point a fort had been built by De la Motte Cadillac, as early as 1701.

Originally Virginia claimed jurisdiction over a large part of Western Pennsylvania, as being within her dominions; yet it was not until after the close of the revolution that the boundary line was permanently established. Then this tract was divided into two counties—the one, Westmoreland, extending from the mountains west of the Alleghany River, including Pittsburg and all the country between the Kishkeminittas and Youghioghenny; the other, Washington, comprised all south and west of Pittsburg, inclusive of all the country east and west of the Monongahela River. At this period Fort Pitt was a frontier post, around which had sprung up the village of Pittsburg, which was not regularly laid out into a town until 1784. The settlement on the Monongahela at "Redstone Old Fort," or "Fort Burd," as it was originally called, having become an important point of embarkation for western emigrants, was the next year laid off into a town, under the name of Brownsville. Regular forwarding houses were soon established here, by whose lines goods were systematically wagoned over the mountains, thus superseding the slow and tedious mode of transportation by pack-horses, to which the emigrants had previously been obliged to resort.

In July, 1786, "The Pittsburg Gazette," the first newspaper issued in the West, was published; the second being "The Kentucky Gazette," established at Lexington in August of the next year. As late as 1791 the Alleghany River was the frontier limit of the settlements of Pennsylvania, the Indians holding possession of the region round its north-western tributary, with the exception of a few scattering settlements, which were all simultaneously broken up and exterminated in one night, in February of this year, by a band of one hundred and fifty Indians. During the campaigns of Harmer, St. Clair, and Wayne, Pittsburg was the great depot for the armies.

By this time agriculture and manufactures had begun to flourish in Western Pennsylvania and Virginia, and an extensive trade was carried on with the settlements on the Ohio and on the Lower Mississippi, with New Orleans and the rich Spanish settlements in its vicinity. Monongahela whisky, horses, cattle, and agricultural and mechanical implements of iron, were the principal articles of export. The Spanish Government soon after much embarrassed this trade by imposing heavy duties.

The first settlements in Tennessee were made in the vicinity of Fort London, on the Little Tennessee, in what is now Monroe county, East

Tennessee, about the year 1758. Forts Loudon and Chissel were built at that time by Colonel Byrd, who marched into the Cherokee country with a regiment from Virginia. The next year war broke out with the Cherokees. In 1760 the Cherokees besieged Fort Loudon, into which the settlers had gathered their families, numbering nearly three hundred persons. The latter were obliged to surrender for want of provisions, but, agreeably to the terms of capitulation, were to retreat unmolested beyond the Blue Ridge. When they had proceeded about twenty miles on their route, the savages fell upon them and massacred all but nine, not even sparing the women and children.

The only settlements were thus broken up by this war. The next year the celebrated Daniel Boone made an excursion from North Carolina to the waters of the Holstein. In 1766 Colonel James Smith, with five others, traversed a great portion of Middle and West Tennessee. At the mouth of the Tennessee Smith's companions left him to make farther explorations in Illinois, while he, in company with a negro lad, returned home through the wilderness, after an absence of eleven months, during which he saw "neither bread, money, women, nor spirituous liquors."

Other explorations soon succeeded, and permanent settlements were first made in 1768 and '69, by emigrants from Virginia and North Carolina, who were scattered along the branches of the Holstein, French, Broad, and Watauga. The jurisdiction of North Carolina was in 1777 extended over the western district, which was organized as the county of Washington, and extending nominally westward to the Mississippi. Soon after, some of the more daring pioneers made a settlement at Bledsoe's station, in Middle Tennessee, in the heart of the Chickasaw nation, and separated several hundred miles, by the usual traveled route, from their kinsmen on the Holstein. A number of French traders had previously established a trading post and erected a few cabins at the "Bluff" near the site of Nashville. To the same vicinity Colonel James Robertson, in the fall of 1780, emigrated with forty families from North Carolina, who were driven from their homes by the marauding incursions of Tarleton's cavalry, and established "Robertson's Station," which formed the nucleus around which gathered the settlements on the Cumberland. The Cherokees having commenced hostilities upon the frontier inhabitants about the commencement of the year 1781, Colonel Campbell, of Virginia, with seven hundred mounted riflemen, invaded their country and defeated them. At the close of the revolution, settlers moved in in large numbers from Virginia, North and South Carolina, and Georgia. Nashville was laid out in the summer of 1784, and named from General Francis Nash, who fell at Brandywine.

The people of this district, in common with those of Kentucky, and on the Upper Ohio, were deeply interested in the navigation of the Mississippi, and under the tempting offers of the Spanish governor of Louisiana, many were lured to emigrate to West Florida, and become subjects of the Spanish king.

North Carolina having ceded her claims to her western lands, Congress, in May, 1790, erected this into a territory under the name of the "Southwestern Territory," according to the provisions of the ordinance of 1787, excepting the article prohibiting slavery.

The territorial government was organized with a legislature, a legislative council, with William Blount as their first governor. Knoxville was made the seat of government. A fort was erected to intimidate the Indians, by the United States, in the Indian country, on the site of Kingston. From this period until the final overthrow of the northwestern Indians by Wayne, this territory suffered from the hostilities of the Creeks and Cherokees, who were secretly supplied with arms and ammunition by the Spanish agents, with the hope that they would exterminate the Cumberland settlements. In 1795 the territory contained a population of seventy-seven thousand two hundred and sixty-two, of whom about ten thousand were slaves. On the first of June, 1796, it was admitted into the Union as the State of Tennessee.

By the treaty of October 27, 1795, with Spain, the old sore, the right of navigating the Mississippi, was closed, that power ceding to the United States the right of free navigation.

The Territory of Mississippi was organized in 1798, and Winthrop Sargeant appointed governor. By the ordinance of 1787, the people of the Northwest Territory were entitled to elect representatives to a territorial legislature whenever it contained five thousand males of full age. Before the close of the year 1798, the territory had this number, and members to a territorial legislature were soon after chosen. In the year 1799 William H. Harrison was chosen the first delegate to Congress from the Northwest Territory. In 1800 the Territory of Indiana was formed, and the next year William H. Harrison appointed governor. This territory comprised the present States of Indiana, Illinois, Wisconsin, and Michigan, which vast country then had less than six thousand whites, and those mainly of French origin. On the 30th of April, 1802, Congress passed an act authorizing a convention to form a constitution for Ohio. This convention met at Chillicothe in the succeeding November; and on the 29th of that month a constitution of state government was ratified and signed, by which act Ohio became one of the states of the Federal Union. In October, 1802, the whole western country was thrown into a ferment by the suspension of the American right of depositing goods and produce at New Orleans, guaranteed by the treaty of 1795 with Spain. The whole commerce of the west was struck at in a vital point, and the treaty evidently violated. On the 25th of February, 1803, the port was opened to provisions, on paying a duty, and in April following, by orders of the King of Spain, the right of deposit was restored.

We have seen that Louisiana was ceded to Spain in 1763, and by a secret article in the treaty of St. Ildefonso, concluded in 1800, that power ceded it back to France. Napoleon, however, wished to keep this cession secret until he should have—as he hoped to do—reduced St. Domingo to submission. Failing in this, he was rendered indifferent to his new acquisition. In January, 1803, he sent out Laussat as prefect of the colony, which was the first intimation that the inhabitants had of the transfer, which gave them great joy.

On being informed of this retrocession, President Jefferson had dispatched instructions to Robert Livingston, the American minister at

Paris, to represent to the First Consul that the occupation of New Orleans by France would endanger the friendly relations between the two nations, and, perhaps, even oblige the United States to make common cause with England; as the possession of this city by the former, by giving her the command of the Mississippi, the only outlet to the produce of the Western States, and also of the Gulf of Mexico, so important to American commerce, would render it almost certain that the conflicting interests of the two nations would lead to an open rupture. Mr. Livingston was, therefore, instructed not only to insist upon the free navigation of the Mississippi, but to negotiate for the acquisition of New Orleans itself and the surrounding territory; and Mr. Monroe was appointed with full powers to assist him in the negotiation.

Bonaparte, who always acted promptly, soon came to the conclusion that what he could not defend, he had better dispose of on the best terms; but before deciding, he summoned two of his ministers in council, on the 10th of April, 1803, and thus addressed them:

"I am fully sensible of the value of Louisiana, and it was my wish to repair the error of the French diplomatists who abandoned it in 1763. I have scarcely recovered it before I run the risk of losing it; but if I am obliged to give it up, it shall hereafter cost more to those who force me to part with it than to those to whom I yield it. The English have despoiled France of all her northern possessions in America, and now they covet those of the south. I am determined that they shall not have the Mississippi. Although Louisiana is but a trifle compared to their vast possessions in other parts of the globe, yet, judging from the vexation they have manifested on seeing it return to the power of France, I am certain that their first object will be to gain possession of it. They will probably commence the war in that quarter. They have twenty vessels in the Gulf of Mexico, and our affairs in St. Domingo are daily getting worse since the death of Le Clerc. The conquest of Louisiana might be easily made, and I have not a moment to lose in putting it out of their reach. I am not sure but what they have already begun an attack upon it. Such a measure would be in accordance with their habits; and in their place, I should not wait. I am inclined, in order to deprive them of all prospect of ever possessing it, to cede it to the United States. Indeed, I can hardly say that I cede it, for I do not yet possess it; and if I wait but a short time, my enemies may leave me nothing but an empty title to grant to the Republic I wish to conciliate. They only ask for one city of Louisiana, but I consider the whole colony as lost; and I believe that in the hands of this rising power it will be more useful to the political, and even the commercial interests of France, than if I should attempt to retain it. Let me have both your opinions on the subject."

One of the ministers, Barbe Marbois, fully approved of the cession, but the other opposed it. They debated the matter for a long time, and Bonaparte concluded the conference without making his determination known. The next day, however, he sent for Marbois, and said to him:

"The season for deliberation is over: I have determined to renounce Louisiana. I shall give up not only New Orleans, but the whole colony,

without reservation. That I do not undervalue Louisiana I have sufficiently proved, as the object of my first treaty with Spain was to recover it. But though I regret parting with it, I am convinced it would be folly to persist in trying to keep it. I commission you, therefore, to negotiate this affair with the envoys of the United States. Do not wait the arrival of Mr. Monroe, but go this very day and confer with Mr. Livingston. Remember, however, that I need ample funds for carrying on the war, and I do not wish to commence it by levying new taxes. For the last century France and Spain have incurred great expense in the improvement of Louisiana, for which her trade has never indemnified them. Large sums have been advanced to different companies, which have never returned to the treasury. It is fair that I should require repayment for these. Were I to regulate my demands by the importance of this territory to the United States, they would be unbounded; but, being obliged to part with it, I shall be moderate in my terms. Still, remember, I must have fifty millions of francs, and I will not consent to take less. I would rather make some desperate effort to preserve this fine country."

The negotiations commenced that very day. Mr. Monroe arrived at Paris on the 12th of April, and the two representatives of the United States, after holding a private conference, announced that they were ready to treat for the cession of the entire territory, which at first Mr. Livingston had hesitated to do, believing the proposal of the First Consul to be only a device to gain time.

On the 30th of April, 1803, the treaty was signed. The United States were to pay fifteen million of dollars for their new acquisition, and be indemnified for some illegal captures; while it was agreed that the vessels and merchandise of France and Spain should be admitted into all the ports of Louisiana free of duty for twelve years.

Bonaparte stipulated in favor of Louisiana that it should as soon as possible be incorporated into the Union, and that its inhabitants should enjoy the same rights, privileges, and immunities as other citizens of the United States; and the third article of the treaty, securing to them these benefits, was drawn up by the First Consul himself, who presented it to the plenipotentiaries with these words:

"Make it known to the people of Louisiana, that we regret to part with them; that we have stipulated for all the advantages they could desire; and that France, in giving them up, has insured to them the greatest of all. They could never have prospered under any European government as they will when they become independent. But, while they enjoy the privileges of liberty, let them ever remember that they are French, and preserve for their mother country that affection which a common origin inspires."

The completion of this important transaction gave equal satisfaction to both parties. "I consider," said Livingston, "that from this day the United States takes rank with the first powers of Europe, and now she has entirely escaped from the power of England; and Bonaparte expressed a similar sentiment in these words: "By this cession of territory, I have secured the power of the United States, and given to England a maritime rival, who at some future time will humble her pride."

These words appeared prophetic when the troops of Britain, a few years after, met so signal an overthrow on the plains of Louisiana.

The boundaries of the colony had never been clearly defined, and one of Bonaparte's ministers drew his attention to this obscurity. "No matter," said he, "if there was no uncertainty, it would, perhaps, be good policy to leave some;" and, in fact, the Americans, interpreting to their own advantage this uncertainty, some few years after seized upon the extensive territory of Baton Rouge, which was in dispute between them and the Spaniards.

On the 30th of November, 1803, Laussat took possession of the country, when Casa Calvo and Salsedo, the Spanish commissioners, presented to him the keys of the city, over which the tri-colored flag floated but for the short space of twenty days. The colony had been under the rule of Spain for a little more than thirty-four years.

On the 20th of December, in the same year, Generals Wilkinson and Claiborne, who were jointly commissioned to take possession of the country for the United States, made their entry into New Orleans at the head of the American troops. Laussat gave up his command, and the star-spangled banner supplanted the tri-colored flag of France.

The purchase of Louisiana, which gave the United States their sole claim to the vast territory west of the Mississippi, extending on the north through Oregon to the Pacific, and further south to the Mexican dominions, was the most important event to the nation which has occurred in this century. From that moment, the interests of the whole people of the Mississippi Valley became as one, and its vast natural resources began to be rapidly developed. So great are they, that it is destined to become the center of American power—"the mistress of the world."

On the 11th of January, 1805, Congress established the Territory of Michigan, and appointed William Hull governor. This same year Detroit was destroyed by fire. The town occupied only about two acres, completely covered with buildings and combustible materials, excepting the narrow intervals of fourteen or fifteen feet used as streets or lanes, and the whole was environed with a very strong and secure defense of tall and solid pickets.

At this period, the conspiracy of Aaron Burr began to agitate the western country. In December, 1806, a fleet of boats, with arms, provisions, and ammunition, belonging to the confederates of Burr, was seized upon the Muskingum, by agents of the United States, which proved a fatal blow to the project. In 1809 the Territory of Illinois was formed from the western part of the Indiana Territory, and named from the powerful tribe which once had occupied its soil.

The Indians, who, since the treaty of Greenville, had been at peace, about the year 1810 began to commit aggressions upon the inhabitants of the west under the leadership of Tecumseh. The next year they were defeated by General Harrison, at the battle of Tippecanoe, in Indiana. This year was also distinguished by the voyage from Pittsburgh to New Orleans of the steamboat "New Orleans," the first steamer ever launched upon the western waters.

In June, 1812, the United States declared war against Great Britain. Of this war the west was the principal theatre. Its opening scenes were as gloomy and disastrous to the American arms as its close was brilliant and triumphant.

At the close of the war the population of the Territories of Indiana, Illinois, and Michigan was less than fifty thousand. But from that time onward the tide of emigration again went forward with unprecedented rapidity. On the 19th of April, 1816, Indiana was admitted into the Union, and Illinois on the 3d of December, 1818. The remainder of the Northwest Territory, as then organized, was included in the Territory of Michigan, of which that section west of Lake Michigan bore the name of the Huron District. This part of the west increased so slowly that, by the census of 1830, the Territory of Michigan contained, exclusive of the Huron District, but twenty-eight thousand souls, while that had only a population of three thousand six hundred and forty. Emigration began to set in more strongly to the Territory of Michigan in consequence of steam navigation having been successfully introduced upon the great lakes of the west. The first steamboat upon these immense inland seas was the "Walk-in-the-Water," which, in 1819, went as far as Mackinaw; yet it was not until 1826 that a steamer rode the waters of Lake Michigan, and six years more had elapsed ere one had penetrated as far as Chicago.

The year 1832 was signalized by three important events in the history of the west, viz: the first appearance of the Asiatic cholera, the great flood in the Ohio, and the war with Black Hawk.

The west has suffered serious drawbacks in its progress from inefficient systems of banking. One bank frequently was made the basis of another, and that of a third, and so on throughout the country. Some three or four shrewd agents or directors, in establishing a bank, would collect a few thousand in specie, that had been honestly paid in, and then make up the remainder of the capital with the bills or stock from some neighboring bank. Thus, so intimate was the connection of each bank with others, that, when one or two gave way, they all went down together in one common ruin.

In 1804, the year succeeding the purchase of Louisiana, Congress formed from part of it the "Territory of Orleans," which was admitted into the Union in 1812, as the State of Louisiana. In 1805, after the Territory of Orleans was erected, the remaining part of the purchase from the French was formed into the Territory of Louisiana, of which the old French town of St. Louis was the capital. This town, the oldest in the territory, had been founded in 1764, by M. Laclède, agent for a trading association, to whom had been given, by the French government of Louisiana, a monopoly of the commerce in furs and peltries with the Indian tribes of the Missouri and Upper Mississippi. The population of the territory in 1805 was trifling, and consisted mainly of French Creoles and traders, who were scattered along the banks of the Mississippi and the Arkansas. Upon the admission of Louisiana as a state, the name of the Territory of Louisiana was changed to that of Missouri. From the southern part of this, in 1819, was erected the

Territory of Arkansas, which then contained but a few thousand inhabitants, who were mainly in detached settlements on the Mississippi and on the Arkansas, in the vicinity of the "Post of Arkansas." The first settlement in Arkansas was made on the Arkansas River, about the year 1723, upon the grant of the notorious John Law; but, being unsuccessful, was soon after abandoned. In 1820 Missouri was admitted into the Union, and Arkansas in 1836.

Michigan was admitted as a state in 1837. The Huron District was organized as the Wisconsin Territory in 1836, and was admitted into the Union as a state in 1848. The first settlement in Wisconsin was made in 1665, when Father Claude Allouez established a mission at La Pointe, at the western end of Lake Superior. Four years after, a mission was permanently established at Green Bay; and eventually the French also established themselves at Prairie du Chien. In 1819 an expedition, under Governor Cass, explored the territory, and found it to be little more than the abode of a few Indian traders, scattered here and there. About this time the government established military posts at Green Bay and Prairie du Chien. About the year 1825 some farmers settled in the vicinity of Galena, which had then become a noted mineral region. Immediately after the war with Black Hawk, emigrants flowed in from New York, Ohio, and Michigan, and the flourishing towns of Milwaukee, Sheboygan, Racine, and Southport were laid out on the borders of Lake Michigan. At the conclusion of the same war, the lands west of the Mississippi were thrown open to emigrants, who commenced settlements in the vicinity of Fort Madison and Burlington in 1833. Dubuque had long before been a trading post, and was the first settlement in Iowa. It derived its name from Julien Dubuque, an enterprising French Canadian, who, in 1798, obtained a grant of one hundred and forty thousand acres from the Indians, upon which he resided until his death in 1810, when he had accumulated immense wealth by lead mining and trading. In June, 1838, Iowa was erected into a territory, and in 1846 became a state.

In 1849 Minnesota Territory was organized; it then contained a little less than five thousand souls. The first American establishment in the territory was Fort Snelling, at the mouth of St. Peter's, or Minnesota River, which was founded in 1819. The French, and afterwards the English, occupied this country with their fur trading forts. Pembina, on the northern boundary, is the oldest village, having been established in 1812 by Lord Shelkirk, a Scottish nobleman, under a grant from the Hudson's Bay Company.

California was admitted into the Union as a sister state in 1850.

The Territory of Oregon was organized in 1847, immediately after the adjustment of the treaty with Great Britain, and its rapid increase in population will soon justify its citizens in imperatively demanding an admittance into the confederacy.

The Territory of Utah was organized in 1850. A great deal of interest is felt in relation to this embryo state, owing to the religion of its settlers, the Mormons, and their "peculiar institution," polygamy.

The Territory of New Mexico was also organized in 1850.

The Territories of Kansas and Nebraska, after the most exciting debate known in congressional annals, were organized in May, 1854. This unparalleled excitement arose from the repeal, in connection with the territorial organization, of the compact known as the Missouri Compromise.

Thus "westward the star of empire takes its way;" and new states and populous cities spring into life beneath its glowing light with the rapidity of magic.

The early history, biography, and scenery of the Valley of the Mississippi, will confer on our literature a variety of important benefits. They furnish new and stirring themes for the historian, the poet, the novelist, the dramatist, and the orator. They are equally rich in events and objects for the historical painter. As a great number of those who first threaded the lonely and silent labyrinths of our primitive woods, were men of intelligence, the story of their perils and exploits, has a dignity which does not belong to the early history of other nations. We should delight to follow their footsteps and stand upon the spot where, at night, they lighted up the fire of hickory bark to frighten off the wolf; where the rattlesnake infused his deadly poison into the foot of the rash intruders on his ancient domain; where, in the deep grass, they laid prostrate and breathless, while the enemy, in Indian file, passed unconsciously on his march. We should plant willows over the spots once fertilized with their blood; and the laurel tree where they met the unequal war of death, and remained conquerors of the little field.

From the hero, we should pass to the hero's wife, the companion of his toil, and too often the victim of the dangers into which he plunged. We shall find her great according to the occasion. Contented under deprivation, and patient through that sickness of the heart, which nature inflicts on her who wanders from the home of her fathers; watchful, that her little one should not stray from the cabin door, and be lost in the dark and savage woods; wild with alarm when the night closed in, and the wanderer did not return; or frantic with terror, when the scream of the Indian told the dreadful tale that he had been made a captive and could no more be folded to her bosom. We shall follow her to other scenes, when the merciless foe pursued the mover's boat, or assaulted the little cabin, where, in the dark and dismal night, the lone family must defend itself or perish. Here it was that she rose above her sex in active courage; and displayed, in defense of her offspring more than herself, such examples of self-possession and personal bravery, as clothe her in a new robe of moral grandeur.

The exciting influences of that perilous age were not limited to man and woman; the child also felt their power, and became a young hero; the girl fearlessly crushed the head of the serpent that crossed her path, when hieing alone to the distant neighbor; and the boy, while yet too young to carry the rifle, placed the little tomahawk in his buckskin belt, and followed in the wake of the hunter; or sallied forth a young volunteer, when his father and brothers pursued the retreating savage. Even the dog, man's faithful sentinel in the wilderness, had his senses made

keener, and his instinct exalted into reason, by the dangers that surrounded his playmates of the family.

We could introduce incidents to illustrate all that is here recounted; many might be collected from the narratives which have been published; but a much greater number lie buried in the memories of the aged pioneers and their immediate descendants, and will be lost unless they be speedily made a part of our history. As specimens of what remain unpublished, we cite the following:

A family, consisting of the husband, the wife, two children, one two years old, the other at the breast, occupied a solitary cabin in the neighborhood of a block-house, where several other families resided, in the year 1789, near the little Miami river, in Ohio. Not long after the cabin was built the husband unfortunately died; and such was the grief and gloom of his widow, that she preferred to live alone, rather than mingle with the inhabitants of the crowded block-house, where the noise and bustle would be abhorrent to her feelings. In this solitary situation she passed several months. At night it was a common thing to see and hear the Indians around her habitation; and to secure her babes from the tomahawk, she resorted to the following precaution: Raising a puncheon of the floor, she dug a hole in the ground and prepared a bed, in which, after they had gone to sleep, she placed them side by side, and then restored the puncheon. When they awoke and required nourishment, she raised it, and hushing them to sleep, returned them to their hiding place. In this way, to use her own words, she passed night after night, and week after week, with the Indians and her babes, the sole objects of her thoughts and vigils.

Would you have an example of fortitude and maternal love, you could turn to no nation for one more touching or original.

The following incident displays the female character under an aspect a little different, and shows that in emergencies it may sometimes rise above that of the other sex:

About the year 1790, several families, emigrating together into the interior of Kentucky, encamped at the distance of a mile from a new settlement of five cabins. Before they had laid down, and were still sitting round the blazing brush, a party of Indians approached behind the trees and fired upon them. One man was killed on the spot, and another fled to the village, leaving *behind* him a young wife and an infant child! As no danger had been apprehended, the men had not their ammunition at hand, and were so confused by the fire of the savages that it was left for one of the mothers of the party to ascend into the wagon, where it was deposited, break open the box with an axe, hand it out, and direct the men to return the fire of the enemy. This was done, and they dispersed.

The next incident we shall narrate, was communicated by one of the most distinguished citizens of the state just mentioned. We give it to you in his own words:

"In the latter part of April, 1784, my father with his family, and five other families, set out from Louisville, in two flat-bottomed boats, for the Long Falls of Green River. The intention was to descend the Ohio

river to the mouth of Green river, and ascend that river to the place of destination. At that time there were no settlements in Kentucky, within one hundred miles of the Long Falls of Green River (afterwards called Vienna.) The families were in one boat and their cattle in the other. When we had descended the river about one hundred miles, and were near the middle of it, gliding along very securely, as we thought, about ten o'clock of the night we heard a prodigious yelling, by Indians, some two or three miles below us on the northern shore. We had floated but a little distance farther down the river, when we saw a number of fires on that shore. The yelling still continued, and we concluded that they had captured a boat, which had passed us about mid-day, and were massacring their captives. Our two boats were lashed together, and the best practicable arrangements made for defending them. The men were distributed by my father to the best advantage, in case of an attack; they were seven in number, including myself. The boats were *neared* to the Kentucky shore, with as little noise as possible. We were afraid to approach too near the Kentucky shore, lest there might be Indians on that shore also. We had not yet reached their uppermost fire, (their fires were extended along the bank at intervals for half a mile or more,) and we entertained a faint hope that we might slip by unperceived. But they discovered us when we had got about mid-way of their fires, and commanded us to *come to*. We were silent, for my father had given strict orders that no one should utter any sound but that of his rifle; and not that until the Indians should come within powder-burning distance. They united in a most terrific yell, and rushed to their canoes, and pursued us. We floated on in silence — not an oar was pulled. They approached us within less than a hundred yards, with a seeming determination to board us. Just at this moment my mother rose from her seat, collected the axes, and placed one by the side of each man, where he stood with his gun, touching him on the knee with the handle of the axe, as she leaned it up against the side of the boat, to let him know it was there, and retired to her seat, retaining a hatchet for herself. The Indians continued hovering on our rear, and yelling for nearly three miles, when, awed by the inferences which they drew from our silence, they relinquished farther pursuit. None but those who have had a practical acquaintance with Indian warfare, can form a just idea of the terror which their hideous yelling is calculated to inspire. I was then about ten years old, and shall never forget the sensation of that night; nor can I ever cease to admire the fortitude and composure displayed by my mother on that occasion. We were saved, I have no doubt, by the judicious system of conduct and defense, which my father had prescribed to our little band. We were seven men and three boys — but nine guns in all. They were more than a hundred. My mother, in speaking of it afterwards, in her calm way said, we had made a *providential escape*, for which we ought to feel grateful."

Although but few years have elapsed since that night of deep and dismal emotion, the war-fires which blazed beneath the white limbs of the sycamore and gleamed upon the waters, have long since been superseded by the lights of the quiet and comfortable farm-house; the gliding bark

canoe has been banished by the impetuous steamer; and the very shore on which the enemy raised their frightful death yell, has been washed away by the agitated waters! Nowhere in the annals of other nations, can we find such matchless contrasts between two periods but half a century apart.

In the year 1786, three brothers set out from a wooden fort, in which some families were intrenched, to hunt on Green river, in the state of Kentucky. They ascended the river in a canoe for several miles, when, finding no game, they determined on returning home. The oldest brother left the canoe, that he might hunt on his way back. As the other two slowly floated down the stream, and were at a point called the little falls, they discovered an Indian skulking towards them through the woods. He was on the same side of the river with their brother. After deliberating a moment, they decided on flight; and applying their paddles with great industry soon reached the fort, but did not relate what they had seen. In about an hour the brother arrived, and while ignorant of their discovery made the following statement:

"That has happened to me to-day, which never happened to me before. I had not met with any game, and became tired of walking, and turned in towards the river, intending to meet my brothers at the little falls, and take a seat in the canoe; but when I got near to that point, my dog sat down and howled in a low and piteous tone. I coaxed him, patted and flattered him to follow me, but he would not, and when I would approach him, he would jump up joyously and run off from towards the river, and look at me and wag his tail and seemed eager to go on. After endeavoring, in vain, to get him to follow me, I concluded to follow him, and did so. He ran briskly before me, often looking back, as if to be sure that I was coming, and to hasten my steps."

The brother was then told, that at the very point where the faithful dog had arrested his march towards the canoe, those who were in it had discovered an Indian. All who heard the story, believed that he had been perceived by the animal, and recognized as the enemy of his master.

The dog of the hunter was his companion and friend. They were much together, and mutually dependant upon and serviceable to each other. A hunter would much rather have lost his horse than his dog. The latter was the more useful animal to his master and greatly more beloved by him.

Nearly two years afterwards another incident occurred at the same fort, which displays the dangers which beset the emigrants of that period, and illustrates the magnanimity of the female character.

About twenty young persons, male and female, of the fort, had united in a flax-pulling, in one of the most distant fields. In the course of the forenoon two of their mothers made them a visit, and the younger took along her child, about eighteen months old. When the whole party were near the woods, one of the young women, who had climbed over the fence, was fired upon by several Indians concealed in the bushes, who at the same time raised the usual war-whoop. She was wounded, but retreated, as did the whole party; some running with her down the lane,

and others across the field. They were hotly pursued by the enemy, who continued to yell and fire upon them. The older of the two mothers who had gone out, recollecting in her flight that the younger, a small and feeble woman, was burdened with her child, turned back in the face of the enemy, they firing and yelling hideously, took the child from its almost exhausted mother, and ran with it to the fort, a distance of three hundred yards. During the chase she was twice shot at with rifles, when the enemy was so near that the powder burnt her, and one arrow passed through her sleeve, but she escaped uninjured. The young woman, who was wounded, almost reached the place of safety when she sunk, and her pursuer, who had the hardihood to attempt to scalp her, was killed by a bullet from the fort. *

"When devoid of hope, that oasis amid the arid of desert life, man is a being, when placed in dangers, who is to be dreaded. When hope has fled, despair usurps its place, and none despair till they behold death, as it were, staring them in the face; and when life, with all its beautiful shades and colors is bleached, with the bitterness of approaching death, 'tis then man becomes desperate; the most timid have then done deeds of daring which were almost incredible. I may say that hope had almost forsaken me, when I beheld six blood-thirsty Indians, with loaded guns, and triggers cocked, waiting for a sight to shoot us dead. From my companion's appearance, I should judge his feelings were analogous to my own. I looked at him but once when behind a log, but the expression of his face was so indelibly impressed upon my mind, that as long as memory lasts, those stern and determined features can never pass from it. His face was pale, but not occasioned by fear, for Girty never felt that sensation. His lips were firmly compressed, till the blood was forced from them, and they were of an ashy paleness. The large veins of his dark face were swollen till ready to burst, and I almost imagined I could see the fire sparkling from his dark eyes, as he cast them on me; and, whispering through his clenched fist, bade me 'die like a man, and not like a captive wolf.'

"We had now become desperate, and as the hope of life had fled, we determined to die like warriors. We now resolved as a last chance to employ a deception, which has since saved many lives. Girty took his cap, which was made of raccoon-skin, and slowly raised it above the log; the deception was not observed, for six shots were immediately fired at it, and two balls passed through it. I fired, and an Indian fell; but Girty reserved his fire, lest the enemy should rush up with their tomahawks. This kept them back, for none appeared willing to sacrifice his life for the benefit of the rest. We now arose, and took our stand between two trees, where, as a faint glimmer of hope beamed on us, we determined to conquer or die. A silence ensued, only to be broken by the death knell of one human being. One of the Indians, bolder than the rest, left his hiding place, and took a circuitous route, in order to attack us in the rear, but Girty's unerring aim prevented the Indian from running but a few steps, when he fell dead.

* Dr. Drake.

"We had now four Indians to contend against, who were experienced marksmen, so we could not yet call our scalps our own; but the skirmish was unexpectedly decided; as if by natural consent, two of the savages left their trees, and started on the same fatal route, and with the same intention of attacking us in the rear, which their comrade had so ineffectually tried. Here, success, which had followed in our path from the moment of starting, again visited us; although the Indians were running, we killed them both. Indians, in all their skirmishes, are exceedingly politic; they never waste a load of powder, and particularly when their own lives are in jeopardy. When fighting against numbers inferior to their own, their usual practice is to deliver their fire, and finish the destructive work with their tomahawks; but this time they showed an uncommon neglect of their usual policy. Two Indians were yet remaining, who could have rushed upon us and shot us down, but by some strange infatuation, they sprang from their hiding-places, and leaping into the pawpaw thicket, bounded off, yelling most demoniacally, leaving four of their comrades upon the ground. We loaded our guns and walked to the fallen Indians, but one fellow, who was shot through the hip, suddenly arose in a sitting posture, and fired his gun so quick that I could not get out of the range of his shot; the ball passed so near me as to tear away my bullet pouch, and scatter its contents upon the ground. Girty sprang upon him like a hungry panther, and with one blow of his fist laid him upon the ground. Whether he was knocked dead, or animation only suspended, I cannot say; but if the latter was the case, he undoubtedly found himself minus a scalp. The others were dead, and we took their scalps, that we might gaze upon them while speaking or thinking of my family. We hurried on our journey, and soon came to the track of the hurricane, which, although not over fifty yards wide, required at least one hour's hard labor to cross. We walked briskly on, when a large buck passed a few yards ahead of us; this temptation was irresistible; I fired at it, and it fell bounding about one hundred yards. While Girty skinned it, I prowled around within sight, that I might anticipate any savage who might have been attracted by the crack of the gun. While thus engaged, I heard the barking of a dog, which was almost inaudible from its distance, but the barking became momentarily louder, till the animal appeared just behind a swelling ground in front of me. Instantly the idea struck me that the Indians, by means of this dog, were trailing us, and could not be far off. I stepped behind a tree and cocked my gun, that I might shoot the dog as soon as he appeared, but what was my astonishment to discover that the animal was Girty's own dog. This dog had been tied up securely when we left home, but he had broken loose, and had tracked us through our ramified walks till he overtook us. That he had followed our trail was evident from the fact of his skin being still wet from crossing Mad river, which was in an opposite direction from Losantiville, now Cincinnati.

"After hanging our buck above the reach of wolves, we continued our course. The land now became low, and in many places swampy; and instead of the giant oak, which we had looked upon for the past few days, we now saw nothing but the low scrub oak, and a few bushes,

which were the last of the prairie shrubs. We now whooped and sung, and enjoyed ourselves without constraint, for we had left the Indian ground, where danger was less to be feared. But we soon encountered a foe which was quite as dangerous as the red men whom we avoided. As we advanced, and while I was listening to a song which Girty was roaring out to the extent of his voice, our attention was attracted by the peculiar barking of our dog; we were certain by the barking that Tray had discovered no common enemy, for the barking was continued and violent—between a howl and his natural voice. We both ran toward the noise, keeping as much as possible behind the trees, for we had become cautious since our brush with the Indians. When within twenty steps of a towering sycamore, which looked like the patriarch of the woods among the small scrub oak, we beheld, crouched in a fork, a large panther, which, from appearances, was preparing to spring upon us. We had ran within a few feet of the tree before we were aware of the animal we had to deal with, but his glaring and fiery eye-balls were sufficient to apprise us that we were in imminent danger. Girty ran back the way we came, and thus avoided the danger; but I ran directly under the tree, in order to hide behind a small tree which grew beyond; but the enraged animal sprang from his retreat as I passed, and in his fall struck me with his paw. The blow was given with such force that I was knocked upon the ground, and before I could regain my feet, the animal sprang upon me with a deafening yell, and seized me with his fangs by the shoulder. Few, I doubt, have had the opportunity of examining the teeth of an animal with such close scrutiny as I then had. His large jaw lapped over my shoulder, and was so near my face that his long whiskers were thrust into my eyes. I was unable to wield a weapon; but my brave comrade, like a true man, was advancing to my aid. He could not shoot for fear of wounding me; but there was no time for hesitation, and dropping his gun, he drew his knife, and struck it to the handle in the animal's side. This treatment only provoked the panther, and he gnawed the bone of my shoulder till it cracked as if it was breaking. The dog, to make things worse, now got hold of my arm, and probably thinking he was doing me an essential service, shook it violently. After some struggling, I got my left arm loose, and at the same time the panther let go his hold, and attacked Girty with a fury which was only equaled by the readiness with which Girty repelled the attack. The dog now caught the animal by the hind leg, when he turned about and ran up the tree; he again took his station in the large fork, but we had learned a salutary lesson, and we kept at a distance. It was now nearly dark, which enabled us to see his glaring eye-balls glistening like two coals of fire, and his low growls and hisses gave us a prophetic hint not to venture too near. The blood from the wound which Girty had given him, flowed freely, and trickling down the tree, formed a long red line of coagulated blood; but the wound appeared only to have rendered him more furious, and he now lashed his tail against the tree, and tore the long strips of bark from it with his claws, while his red eye-balls rolled in their sockets, and his terrific appearance was not diminished by his long teeth, which I knew to be as sharp as needles.

"The dog still kept a continual howling, which, with the growls and screams of the panther, made most sonorous music, and the concert was assisted by a large owl which sat upon the same tree, and now sang out a long and dismal hoot, probably surprised at being thus disturbed in her slumbers. We were, doubtless, the first that woke the echo of a human voice in that wilderness. At the time these incidents transpired, which I have endeavored to paint, Ohio was a continuous wilderness, which had never been trodden but by the aborigines, who considered themselves as lords of the soil, and truly they were, till their avaricious white neighbors drove them from it. Formerly the Miami valley was inhabited but by the bear, the deer, and other wild animals, and it was many years after ere the echo of axes disturbed the stillness which had remained unbroken for ages—but improvements will go on so long as that restless spirit of emigration is stirring within human breasts. The haunts which I then frequented to obtain my winter's venison, have since been turned up by the plowman; if I go to look at some favorite deer-lick, I find some goods, store or tavern, and the busy bustle incident to town life all around me. Even "Flat Fork," that desolate and almost uninhabitable wilderness, has been encroached upon by the settler, but its subtile miasms will for ever prevent its being cultivated, for it is a huge reservoir of agues and fevers, which, to those who value health, will ever prevent cultivation.

"We now began in earnest to prepare for the death of the panther; my arm was so lacerated that I could not raise a gun to my shoulder, but Girty, who was probably a better shot than myself, now took a deliberate aim and fired. The ball passed through the beast; he sprang into the air, and fell midway between us and the tree. He was disabled from running, but not dead, which our dog discovered to his sorrow. As soon as the animal fell, the dog ran at him, but received a blow from his huge paw, which struck his ear, and stunned him so that he lay apparently dead for some minutes. My gun was yet loaded, which Girty cocked, and cautiously advancing sufficiently near to shoot—the ball passed between his eyes, his head fell between his fore-paws, and even after death his eyes still glared with that inveterate hate which they did while living. As the gun cracked, the dog revived from the stunning which he had received, and, like a true hero, mounted the panther's back, and in his fury for revenge did not appear to have discovered the animal was dead, till he shook him sometime by the neck. We built a fire on the spot where we had gained this our third victory, and examined my arms. The animal's teeth had penetrated to the bone, but had not broken it. We bound up the wound with a handkerchief, and skinned our panther. He measured from the nose to the tip of the tail seven feet nine inches, and his claws were nearly ten inches in length."

We gather from the North American Review some interesting particulars of the early settlement of Ohio.

There were a few events, connected with Ohio, previous to the Revolution, which had a bearing upon her present condition. One was, the rejection by France, in 1755, of the offer, made by England, to give up all her claim to the territory west of a line drawn from the mouth of

French Creek, twenty leagues up that stream toward lake Erie, and from the same point direct to the last mountains of Virginia which descend toward the ocean. The Indians between this line and the Mississippi were to be considered independent; but France was to retain Canada, and her settlements on the Illinois and Wabash. Had this offer been accepted, there is little doubt, from the ability always shown by the French in the management of the Indians, that their colonies would have been planted upon the Scioto, the Miami, and the Maumee; so that, even though the country had finally come under the control of the British colonists, it would have borne the marks of French manners, prejudices, and habits. Another event worthy of notice (we omit the war of 1756, as too well known to need comment) was, the proclamation of the king in 1763, after the treaty of Paris, forbidding his governors in America to grant any warrants of survey or patents "for any lands beyond the heads or sources of any of the rivers that fall into the Atlantic ocean from the west or northwest;" or upon any lands not ceded by the Indians. The effect of this proclamation was to prevent all attempts to settle any part of what now forms the state of Ohio.

In this manner, the soil of Ohio remained wholly untouched by Europeans until the Revolution. And during that struggle, it was preserved from settlement by the contest which arose among the states with reference to the ownership of the vacant lands.

Thus was the state, of which we write, reserved, apparently, until all was ripe, to try within her limits the experiment of democratic institutions, originating under the most favorable circumstances. The first men that trod her soil as citizens, were soldiers of the Revolution, the companions and friends of Washington; and they went to a land which could, when they entered it, bear up, as it has been said, no other than freemen.

The first step that was taken towards settling the Northwest Territory, was by the presentation of a memorial to Congress, from the officers and soldiers of the revolutionary army, entitled to land-bounties under the resolves of September sixteenth, 1776, and August twelfth, 1780. This memorial was forwarded to General Washington by Rufus Putnam, upon the sixteenth of June, 1785; and by him was transmitted to the President of Congress, together with General Putnam's letter, which gave at length his views respecting the settlement of the western country, and the location of military posts there. But at that time the final grants of Virginia, Connecticut and Massachusetts had not been made; and the Federal legislature, upon the twenty-ninth of October, 1783, having under consideration a memorial from General Armand, resolved, that, much as they desired to fulfil their engagements to the officers of the army, they could not, at that time, assign them any particular district.

We cannot enter into an examination of the protests, remonstrances, and petitions, which resulted in the cession, by all the states, of their vacant lands to the Union: but must content ourselves with the bare statement, that New York conveyed her claims to Congress the first of March, 1781; that Virginia released hers upon the first of that month three

years later; while Massachusetts delayed till the nineteenth of April, 1785, and Connecticut till the fourteenth of September, 1786.

Meanwhile, upon the twenty-second of October, 1784, the Five Nations had relinquished to the United States all their claims to the grounds west of Pennsylvania; and, upon the twenty-first of the following January, the Wyandots and Delawares, by the treaty of Fort M'Intosh, (which post stood near the ground now occupied by Beaver, Pennsylvania,) gave to the whites the whole south of what is now Ohio. The Indian title being thus done away, and all the state claims but that of Connecticut given up, Congress, upon the twentieth of May, 1785, passed their ordinance for the disposal of lands in the West. Under this ordinance, Thomas Hutchins, geographer of the United States, assisted by a surveyor from each state, proceeded to examine and divide the newly acquired territory.

Among those who at that time visited the region in question, was Colonel Benjamin Tupper. During the summer and fall of 1785, this gentleman, acting as temporary surveyor for Massachusetts, made himself acquainted with the country about the Muskingum; and, being fairly carried away by its beauty and seeming fertility, was strongly instrumental, it is believed, in causing its selection as the resting-place for the colony that went out nearly two years afterward, under the patronage of the Ohio Company. Indeed, there is reason to think that Tupper's visit to the West was the immediate cause of the formation of that company; which resulted from a meeting of those entitled to land-bounties called through the newspapers by General Putnam and Colonel Tupper, in January, 1786. The meeting took place upon the first of March; the "Ohio Company of Associates" was organized, and the resolution taken to collect a million dollars' worth of certificates, and to employ some one at the West, who would select a spot, for which they might definitely contract with Congress. Congress, on their part, showed a disposition to do all in their power to forward the settlement of the northwestern lands; and with that view, upon the twenty-first of April, 1787, passed a resolution, authorizing the sale of those surveyed townships, which might remain after the portion assigned the army had been drawn for, for public securities; the sale to commence upon the twenty-first of the following September, and the price not to be less than one dollar per acre.

Before this public disposition of the lands commenced, however, it was the purpose of the Associates to make a separate contract for that part of the territory which their agent in the West might select as most suitable. This agent was General Samuel Holden Parsons, who, as Indian commissioner, had, in the year 1786, visited the Ohio country, as far down, at least, as the mouth of the Great Miami, where a treaty was concluded, on the thirty-first of January, with "the Shawnee Nation." This gentleman, in the spring of 1787, selected, after due examination, the same spot which had pleased Colonel Tupper—the valley of the Muskingum. At the mouth of this river he proposed to have the chief city, while the purchase was to stretch along the Ohio to the mouth of the Scioto, so as to include the half of the rich valley that borders that

stream. Many things acted as inducements to this selection; the beautiful scenery and rich soil upon the banks of the clear "Elk-eye;" the protection that would be afforded to the settlers by Fort Harmar, built in 1786, and then the frontier post; the near neighborhood of Western Virginia, from which men and food might be had in time of need; the knowledge, that within the selected territory were coal, salt, and iron and (as strong an inducement as any) the expectation, then entertained, that through the Cuyahoga and Muskingum would be the communication between the Ohio and Lake Erie, while the bulk of the Atlantic trade, it was thought, would pass the mountains from James river and the Potomac, and flow down the Kanawha.

One other thing is said to have influenced General Parsons; this was the advice of some persons, that were supposed to be good judges, that he should *not* select the spot he did. The story is this, and, as our informant had it from General Rufus Putnam, we suppose it to be correct. After General Parsons had examined the country immediately about the junction of the Muskingum with the Ohio, he proceeded up the valley of the former, that he might have a view of the interior. Having gone many miles, he met with one of the Zanes, four of which family were among the most noted of the frontier rangers. Zane was probably engaged in salt-making at Salt Creek, which runs into the Muskingum, about ten miles below the present town of Zanesville. Parsons, well knowing that the man he had chanced upon knew, from an acquaintance of fifteen years or more, the whole of what now forms the state of Ohio, asked his advice touching the location of the purchase which the Ohio Company proposed to make. Zane, having pondered the matter, and consulted with some of the old Delaware Indians that lived thereabout, recommended the general to choose either the Miami country, or the valley of the Scioto, in preference to that which he was then examining. What it was that made Parsons doubt the good faith of the pioneer, we know not; but he came to the conclusion that Zane really preferred the Muskingum to any other point, and wished to purchase it himself when the sales should begin during the following September. This impression did away what little doubt still remained in his mind; and, returning to the east, he laid his proposal to contract with Congress for all the land along the Ohio, between the seventh range of townships and the Scioto, and running back as might be afterward agreed upon, before the directors of the Company of Associates.

His choice being approved by them, he addressed a memorial to the legislature of the confederation, asking them to empower the Board of Treasury to make the proposed contract. This memorial was reported upon the fourteenth of July, the day after the passage of the well-known ordinance of 1787; and the report was passed, and the Board authorized to make the contract, on the twenty-third of that month. Information of this act of Congress having reached New York, Rufus Putnam and Manasseh Cutler, for themselves and their associates, wrote upon the twenty-sixth to the Board of Treasury, offering to accept the proposition of the report with some few variations, but providing that the company should receive no more land than they paid for. Three months

passed before the contract was finally concluded, the indenture bearing date October twenty-seven; and, when the patents issued, in 1792, the million and a half acres named in this contract, were diminished to something over eleven hundred thousand; the rise in continental certificates having prevented the Company from securing the sum they had expected. In consequence of this non-performance, by the Associates, of their original plan, they lost the rich lands upon the Scioto, their western range of townships being the fifteenth.

All being now ready for actual emigration, a plan of the city, which was to be built at the mouth of the Muskingum, was prepared in Boston; and by a vote of the company in November, one hundred settlers were to be sent forward at once; being furnished with provisions while on the way to the new country, and taken into pay at four dollars per month, from their arrival at Pittsburg till the following May. Each man was to provide himself with "a good musket, bayonet, and cartridge-box;" and if he had besides an axe and hoe, and the mechanic his needful tools, he was to be transported free of cost. Accordingly, in December, one party assembled at Danvers, Massachusetts, and upon the first of January a second detachment left Hartford. Their route was the old road nearly that followed by Braddock; and it was April before the united parties left the Youghiogany, and began to float down toward their destined home; so that any who might have counted upon the wages which they were to receive after passing Pittsburg, and which were to be paid in land, must have found their farms but small, compared to their expectations.

Upon the seventh of April, 1788, this little band of forty-seven persons landed, and encamped upon the spot where Marietta now stands; and from that day Ohio dates her existence. The river, at whose mouth this first colony of the new settlers placed itself, was noted, even then, as the scene of many interesting historical events.

At the forks of the Muskingum, upon the ninth of November, 1764, Bouquet had received from the Indians two hundred and six persons who had been made captive during the short but bloody war of Pontiac. Near that spot the first Protestant Christians that lived in Ohio, the Moravians, built their house of worship in 1772. There dwelt the noble-spirited Logan, and the well-known peace chief of the Delawares. Heckewelder labored upon its banks; there, upon the sixteenth of April, 1781, was born his daughter Maria, the first of the "Buckeyes;" and, in one year from that time, was enacted there the most disgraceful of all the frontier acts, the murder of the Moravian Indians.

Upon these matters we cannot dwell; nor can we, indeed, refer to more than a few events relative to the settlement made by Putnam and his companions. As this settlement was undertaken at a time when Indian hostilities were much to be apprehended, the more remote savages, having the preceding fall avowed their intention to oppose all attempts to civilize the northwestern wilderness, upon the ground that those who had made the treaties of 1785 and 1786, were not authorized to do so, one of the most prominent objects of the settlers was the renewal of these treaties: and the Indians were invited to meet the whites for that

purpose in May, at a spot seventy or eighty miles up the Muskingum. Meanwhile, the governor, Arthur St. Clair, who had been appointed upon the fifth of the preceding October, not having reached the West, it became necessary to erect a temporary government for their internal security; for which purpose a set of laws was passed, and published by being nailed to a tree in the village, and Return Jonathan Meigs was appointed to administer them. It is a strong evidence of the good habits of the people of the colony, that, during three months, but one difference occurred, and that was compromised. Indeed, a better set of men, altogether, could scarce have been selected for the purpose, than Putnam's little band. Washington might well say, "No colony in America was ever settled under such favorable auspices as that which has first commenced at the Muskingum. Information, property, and strength, will be its characteristics. I know many of the settlers personally, and there never were men better calculated to promote the welfare of such a community."

With the information which belonged to them was mingled a little of that pedantic love of ancient learning which tinged the better educated of those days. This showed itself in a meeting of the directors and agents, held July 2nd, upon the banks of the Muskingum, for the purpose of naming the city which had just been laid out, and also the public squares. As yet, the settlement had been called merely "The Muskingum," but the name Marietta was now formally given it, in honor of Maria Antoinette; the square upon which the block-houses stood was christened *Campus Martius*; the square No. 19, *Capitolium*; the square No. 61, *Cecilia*; and the great road through the covert way, *Sacra Via*. Nor was the taste in English composition much more in accordance with that of our days, than the conceits just mentioned. Of this we have evidence in an oration, now before us, delivered upon the 4th of July, 1788, by James M. Varnum, who, together with S. H. Parsons and John Armstrong, had been appointed to the bench on the 16th of the previous October.

The governor, as we have said, had not yet arrived, which fact gives occasion for the following passage:

"May he soon arrive! Thou gentle-flowing Ohio, whose surface, as conscious of thy unequalled majesty, reflecteth no images but the grandeur of the impending heaven, bear him, oh! bear him safely to this anxious spot! And thou, beautifully-transparent Muskingum, swell at the moment of his approach, and reflect no objects but of pleasure and delight."

But at the close of this first-fruit of Ohio literature, the judge looked forward, with prophetic eye, to the fortunes of the just-entered wilderness; and, in these dim and seer-like terms, foretells the future:

"Religion and government commenced in those parts of the globe, where yonder glorious luminary first arose in his effulgent majesty. They have followed after him in his brilliant course; nor will they cease till they shall have accomplished, in this western world, the consummation of all things.

"Religion inspires us with certain hope of eternal beatitude, and that

it shall begin upon the earth, by an unreserved restitution to the common centre of existence. With what rapture and ecstasy, therefore, may we look forward to that all-important period when the universal desires of mankind shall be satisfied! When this new Jerusalem shall form one august temple, unfolding its celestial gates to every corner of the globe! When millions shall fly to it, "as doves to their windows," elevating their hopes upon the broad-spreading wings of millennial happiness! Then shall the dark shades of evil be erased from the moral picture, and the universal system appear in all its splendor! Time itself, the era and the grave of imperfection, shall be engulfed in the bosom of Eternity, and one blaze of glory pervade the universe!"

It would appear that the Ohio listened to the prayer of the orator, for, upon the 9th, St. Clair arrived. The ordinance of 1787 provided two distinct grades of government for the northwest territory, under the first of which the whole power was in the hands of the governor and the three judges, and this form was at once organized upon the governor's arrival. The first law, which was "for regulating and establishing the militia," was published upon the 25th of July; and the next day appeared the governor's proclamation, erecting all the country, that had been ceded by the Indians east of the Scioto river, into the county of Washington.

A proposal was made to the Indians early in 1788, to hold a treaty with the whites in May, at a spot seventy or more miles up the Muskingum. The proposed meeting was delayed from time to time; but stores, presents, and other valuables were collected at the designated spot, to wait there until both nations were ready. Upon the 12th of July, however, a party of Chippewas attacked this post; and, though they were repulsed, and six of them made prisoners by the Delaware Indians, who were friendly to the settlers, it was thought best to withdraw the stores to Fort Harmar, and there hold the treaty. This was done, though the Indians could not be brought to conclusive action until the 9th of the following January, when the business was "ended to the entire satisfaction of all concerned."

"The progress of the settlement," says a letter from the Muskingum, "is sufficiently rapid for the first year. We are continually erecting houses, but arrivals are faster than we can possibly provide convenient covering. Our first ball was opened about the middle of December, at which were fifteen ladies, as well accomplished in the manners of polite circles as any I have ever seen in the old states. I mention this to show the progress of society in this new world; where I believe we shall vie with, if not excel, the old states, in every accomplishment necessary to render life agreeable and happy."

The emigration westward at this time was very great; the commandant at Fort Harmar reporting four thousand five hundred persons as having passed that post between February and June, 1788; many of whom would have stopped on the purchase of the Associates, had they been ready to receive them.

During the following year, and indeed until the Indians, who, in spite of treaties, had been committing small depredations all the time, stealing

horses and sinking boats, went fairly and openly to war, the settlement on the Muskingum grew slowly, but steadily, and to good purpose. During the years from 1790 to 1795, it suffered severely, sometimes coming to the brink of destruction from famine and savage foes. But, when that war was ended, though its comparative sterility had become known, and thousands passed its barren hills scoffing, as they guided their keels to the richer regions about the Miami, its progress was of the most encouraging kind. The men that stopped there were those that were willing to work hard, and gain no more than independence after all; and the general character of the settlers about Marietta, from that time forward, afforded the best guarantee that the population of the Purchase would be industrious, persevering, and economical. On the rough "knobs" of Meigs, and Athens, and Washington, were laid the foundations of quite as much true wealth, as upon the fertile plains of the lower country; for true wealth is as much in the habits of the tiller, as in the soil that is tilled.

In later years, the Muskingum valley suffered very severely from sickness; and, when the financial troubles of 1817-18 brought the richest citizens of Ohio to the verge of utter poverty, the poorer emigrants from New England had cause enough to groan, and to lament that they had been persuaded to leave their homes.

"Marietta," says an epistle written about that time, "I find a poor, muddy hole;—the mud here is more disagreeable than snow in Massachusetts. My advice to all my friends is not to come to this country. There is not one in a hundred but what is discontented; but they cannot get back, having spent all their property in getting here. It is the most broken country that I ever saw. Poor, lean pork at twelve cents; salt, four cents; poor, dry fish, twenty cents. The corn is miserable, and we cannot get it ground; we have to pound it. Those that have lanterns grate it. Rum twenty-five cents a gill; sugar thirty-seven cents a pound; and no molasses! This country has been the ruin of a great many poor people; it has undone a great many poor souls forever."

The melancholy picture presented by this letter-writer was, even then, one-half imagination. The idea of the corn being "miserable," for instance, was, we presume, drawn from the shriveled appearance of the southern and western corn, which to a raw Massachusetts man, seems an evidence of worthlessness; though we admit the lantern-grating to have been an evil, as also the absence of molasses;—and the mud of which our writer complains is a good objection to the whole Ohio valley to this day.

Much as has been said about the unlucky choice of the Associates, for their posterity and the world we believe that choice to have been an admirable one. We believe the day will come, when as perfect a union of knowledge and good habits with wealth, and the means of attaining wealth, will be found in the purchase of the Company, as in any part of the state. The uplands of that region afford most excellent wheat lands; and the hill-sides, the best sheep-pastures. Iron abounds in the immediate vicinity, and salt and coal extend through the whole district. Some of the salt-springs yield from two to four hundred bushels a day, and it

is generally of excellent quality. The coal exists in unknown abundance, in veins from five to twelve feet in thickness; some above and some below the bottoms of the valleys. We have here, therefore, all that can be wished, of the means for acquiring comfort and wealth, and these means so placed as to demand toil and economy for their development. This fact, united to the very admirable character of the original settlers, leads us to think that General Parson's selection will in the end prove a very fortunate one.

Having, in this brief manner, given an outline of the planting of the first colony in Ohio, we next turn to the settlement of the Miami country, the most important, in immediate results, of all the early settlements.

The region between the two Miamies of the Ohio was early known to the whites as one of great fertility. In 1751, Christopher Gist, the agent of the old English Ohio Company, went a hundred and fifty miles up the larger of those two streams; and in 1752, the English had made a fort, or trading station, among the Piankeshaws, a tribe of the Twigtwees, or Miamies, on what is now called Loraine's Creek, forty-seven miles above Dayton; which post was attacked and taken by the French during that year. The Miami valleys were afterward examined by Boone, during his captivity among the Shawnees in 1778; and by the war parties, which Bowman and Clark led against the Indian villages on the Little Miami and Mad river. But as the Shawnees were among the most inveterate enemies of the whites, and the unceasing plagues of the Kentucky settlers, no attempt was made to effect a lodgment near their towns until after the treaty made with them in January, 1786. During the spring of that year, Benjamin Stiles, of Redstone, (now Brownsville,) on the Monongehala, visited the newly-ceded district, and, being much pleased with it, went to Philadelphia for the purpose of interesting some of the leading men in its purchase and settlement. He was introduced to John Cleve Symmes, a representative in Congress from New Jersey. Mr. Symmes was so much interested by the accounts given him of the beauty and fertility of the Miami region, that he determined to visit it himself, which he did; though at what period precisely we do not know. Finding the representations of his informant to fall short of, rather than exceed the truth, he applied himself, upon his return, to the task of interesting others in the proposed purchase; and, on the 29th of August, 1787, wrote to the president of Congress, requesting that the Board of Treasury might be empowered to contract with him and his associates for all the lands between the Miami rivers, and running as far north as the north line of the Ohio Company's purchase; the terms of the contract to be substantially the same as those to be made with "Messrs. Sargent, Cutter & Co." His petition was referred to the Board, with authority to contract, upon the 2nd of the following October.

Upon the 26th of the next month Symmes issued a pamphlet, addressed "to the respectable public," stating the terms of this contract, and the scheme of sale which he proposed to adopt. This was, to issue his warrant for not less than a quarter section, (a hundred and sixty acres,) which might be located anywhere, except, of course, upon reser-



THE SUGAR TREE.

rations, and spots previously chosen. No section was to be divided, if the warrant held by the locator would cover the whole. The price was to be sixty-six cents and two-thirds till May, 1788; then one dollar till November; and, after that time, was to be regulated by the demand for land. Every locator was bound to begin improvements within two years, or forfeit one-sixth of his purchase to whosoever would settle thereon and remain seven years. Military bounties might be taken in this as in the purchase of the Associates. For himself Symmes retained one township at the mouth of the Great Miami, at the junction of which stream with the Ohio he proposed to build his great city; to help the growth of which he offered each alternate lot to any one that would build a house and live therein three years.

As continental certificates were rising, in consequence of the great land purchase then making with them, and as difficulty was apprehended in procuring enough to make his first payment, Symmes was anxious to send forward settlers early, that the true value of his purchase might become known at the East. He had, however, some difficulty in arranging with the Board of Treasury the boundaries of the first portion which he was to occupy.

In January, 1788, Matthias Denman, of New Jersey, took an interest in Symmes's purchase, and located, among other tracts, the section and fractional section upon which Cincinnati has been built. Retaining one third of this particular locality, he sold another third to Robert Patterson, and the remainder to John Filson; and the three, about August, 1788, agreed to lay out a town on the spot, which was designated as being opposite the Licking river, to the mouth of which they proposed to have a road cut from Lexington, Kentucky, to be connected with the northern shore by a ferry. Mr. Filson, who had been a schoolmaster, was appointed to name the town; and, in respect to its situation, and as if with a prophetic perception of the mixed race that were in afterdays to inhabit there, he named it Losantiville, which, being interpreted, means *ville*, the town, *anti*, opposite to, *os*, the mouth, *L*, of the Licking. This may well put to blush the *Campus Martius* of the Marietta scholars, and the Fort Solon of the Spaniards. What the connection may have been, it is out of our power to say; but Mr. Filson was killed in about a month from this time by a single Indian, near the Great Miami.

Meanwhile, in July, Symmes got thirty people and eight four-horse wagons under way for the West. These reached Limestone (now Maysville) in September, where they found Mr. Stiles with several persons, from Redstone. But the mind of the chief purchaser was full of trouble. He had not only been obliged to relinquish his first contract, which was expected to embrace two millions of acres, but had failed to conclude one for the single million which he now proposed taking. This arose from a difference between him and the government, he wishing to have the whole Ohio front between the Miamies, while the Board of Treasury wished to confine him to twenty miles upon the Ohio. This proposition, however, he would not for a long time agree to, as he had made sales along nearly the whole Ohio shore. Leaving the bargain in this unsettled state, Congress considered itself released from its obligation to sell;

and, but for the representations of some of his friends our adventurer would have lost his bargain, his labor, and his money. Nor was this all. In February, 1788, he had been appointed one of the judges of the Northwest Territory, in the place of Mr. Armstrong, who declined serving. This appointment gave offense to some; and others were envious of the great fortune which it was thought he would make. Some of his associates complained of him, also, probably because of his endangering the contract to which they had become parties. With these murmurs and reproaches behind him, he saw before him danger, delay, suffering, and, perhaps, ultimate failure and ruin; and, although hopeful by nature, apparently he felt discouraged and sad. However, a visit to his purchase, where he landed on the twenty-second of September, revived his spirits; and upon his return to Maysville, he wrote to Jonathan Dayton, of New Jersey, who had become interested with him, that he thought some of the land near the Great Miami "positively worth a silver dollar per acre, in its present state."

But, though this view of the riches now almost within his grasp somewhat reassured Symmes's mind, he had still enough to trouble him. The Indians were threatening; in Kentucky, he says, "they are perpetually doing mischief; a man a week, I believe, falls by their hands;" but still government gave him little help toward defending himself; for, while three hundred men were stationed at Muskingum, he had "but one ensign and seventeen men for the protection and defense of 'the Slaughter-house,'" as the Miami valley was called by the dwellers upon the "dark and bloody ground" of "Kentucke." And, when Captain Kearny and forty-five soldiers came to Maysville in December, they came without provisions, and made bad worse. Nor did their coming answer any purpose; for, when a little band of settlers were ready to go, under their protection, to the mouth of the Miami, the grand city of Symmes that was to be, the ice stove their boats, their cattle were drowned, and their provisions lost, and so the settlement was prevented. But the fertile mind of a man like our adventurer, could, even under these circumstances, find comfort in the anticipation of what was to come. In the words of Return Jonathan Meigs, the first Ohio poet with whom we have any acquaintance,

"To him glad Fancy brightest prospects shows,
Rejoicing nature all around him glows;
Where late the savage, hid in ambush, lay,
Or roamed the uncultured valleys for his prey,
Her hardy gifts rough Industry extends,
The groves bow down, the lofty forest bends;
And see the spires of towns and cities rise,
And domes and temples swell into the skies."

But alas! so far as his pet city was concerned, "glad Fancy" proved but a gay deceiver; for there came "an amazing high freshet," and "the Point," as it was, and still is called, was fifteen feet under water.

But, before Symmes left Maysville, which was upon the twenty-ninth of January, 1797, two settlements had been made within his purchase. The first was by Mr. Stiles, the original projector of the whole plan; who,

with other Redstone people, had located themselves at the mouth of the Little Miami, where the Indians had been led by the great fertility of the soil to make a partial clearing. To this point, on the eighteenth of November, came twenty-six persons, who built a block-house, named their town Columbia, and prepared for a winter of want and hard fighting. But they were agreeably disappointed; the Indians came to them, and, though the whites answered, as Symmes says, "in a black-guarding manner," the savages sued for peace. One at whom a rifle was presented, took off his cap, trailed his gun, and held out his right hand, by which pacific gestures he induced the Americans to consent to their entrance into the block-houses. In a few days this good understanding ripened into intimacy, "the hunters frequently taking shelter for the night in the Indian camps;" and the red men and squaws "spending whole days and nights" at Columbia, "regaling themselves with whisky." This friendly demeanor on the part of the Indians, was owing to the kind and just conduct of Symmes himself; who, during the preceding September, when examining the country about the Great Miami, had prevented some Kentuckians, who were in his company, from injuring a band of the savages that came within their power; which proceeding, he says, "the Kentuckians thought unpardonable."

The Columbia settlement was, however, like that proposed at the Point, upon land that was under water during the high rise in January, 1789. "But one house escaped the deluge." The soldiers were driven from the ground-floor of their block-house into the loft, and from the loft into the solitary boat which the ice had spared.

This flood deserves to be commemorated in an epic; for, while it demonstrated the dangers to which the three chosen spots of all Ohio, Marietta, Columbia, and the Point, must ever be exposed, it also proved the safety and led to the rapid settlement of Losantiville. The great recommendation of the spot upon which Denman and his comrades proposed to build their "Mosaic" town, as it has been called, appears to have been the fact that it lay opposite the Licking; the terms of Denman's purchase having been, that his warrants were to be located, as nearly as possible, over against the mouth of that river; though the advantage of the noble and high plain at that point could not have escaped any eye. But the freshet of 1789 placed its superiority over other points more strongly to the view than anything else could have done.

We have said that Filson was killed in September, or early in October, 1788. As nothing had been paid upon his third of the plat of Losantiville, his heirs made no claim upon it, and it was transferred to Israel Ludlow, who had been Symmes' surveyor. This gentleman, with Colonel Patterson, one of the other proprietors, and well known in the Indian wars, with about fourteen others, left Maysville upon the twenty-fourth of December, 1788, "to form a station and lay off a town opposite the Licking." The river was filled with ice "from shore to shore;" but, says Symmes, in May, 1789, "perseverance triumphing over difficulty, they landed safe on a most delightful high bank of the Ohio, where they founded the town of Losantiville, which *populate* considerably."

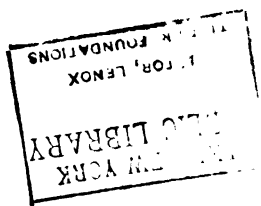
It is a curious fact, and one of many in Western history that may

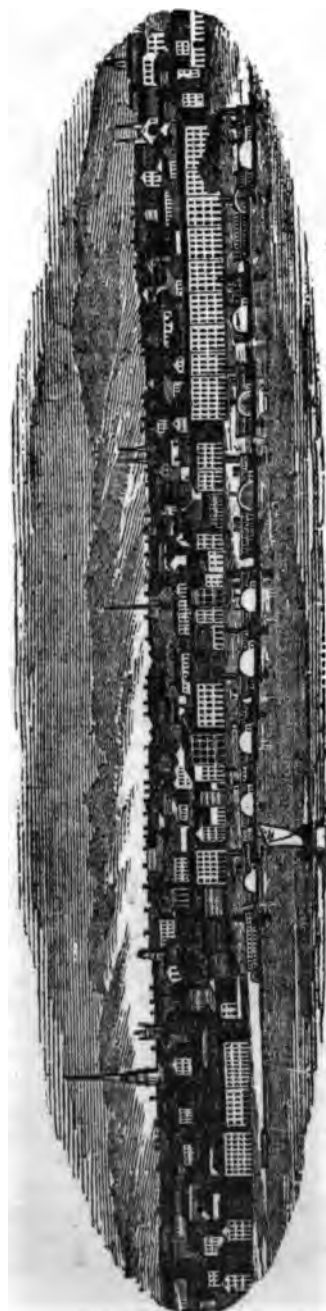
well tend to shake our faith in the learned discussions as to the dates and localities with which scholars now and then amuse the world, that the date of the settlement of Cincinnati is unknown, even though we have the testimony of the very men that made the settlement. Judge Symmes says, in one of his letters, "On the 24th of December, 1788, Colonel Patterson, of Lexington, who is concerned with Mr. Denman in the section at the mouth of Licking river, sailed from Limestone," &c. Some supposing it would take about two days to make the voyage, have dated the being of the Queen City of the West from December 26th. This is but guess-work, however; for, as the river was full of ice, it might have taken ten days to have gone the sixty miles from Maysville to the Licking. But, in a case in chancery, we have the evidence of Patterson and Ludlow, that they landed opposite the Licking "in the month of January, 1789;" while William M'Millan testifies, that he "was one of those who formed the settlement of Cincinnati on the 28th of December, 1788." As we know of nothing more conclusive on the subject than these statements, we must leave this question in the same darkness that we find it, and proceed to more certain events.

The settlers of Losantiville built a few log-huts and block-houses, and proceeded to lay out the town; though they placed their dwellings in the most exposed situation, yet, says Symmes, they "suffered nothing from the freshet." The judge spent a little time with them, and then fell down to North Bend, accompanied by the small army which had been allowed him for his protection. Here they built "a camp," "by setting two forks of saplings in the ground, a ridgepole across, and leaning boat-boards, which had been brought from Maysville, one end on the ground and the other against the ridgepole; enclosing one end, and leaving the other open for a door, where the fire was built to keep out the cold, which was very intense."

Finding his point to be so low, that the city could not be safely built there, unless, as he says, "you raise her like Venice out of the waters," he surveyed the grounds between the north bend of the Ohio and the Miami; thinking a plan might be arranged so as to have the advantage of both rivers still, it being but a mile across the isthmus. He found the land, however, to be too hilly and broken, and was forced to content himself with a small town-plat reaching a mile and a half along the Ohio, of which he offered the alternate lots to settlers, of whom forty came within two months, and built themselves "comfortable log-cabins."

But his longing for a city still continued, and after much consideration, he determined in favor of a spot twelve miles up the Miami, and within half an hour's ride from North Bend; he preferred this to the Ohio shore, because he thought it far better to concentrate the trade of the Miami valley, than to be one of the many cities along the larger stream. The Miami was then considered navigable, and was for many years afterward navigated by keel and flat boats; and, in Symmes' estimation, the country about the river was "superior in point of soil, water, and timber, to any tract of equal dimensions to be found in the United States." The hope that a great city was to arise at this point, long continued to comfort the harrassed mind of the projector; and when St. Clair informed





CINCINNATI.

him that he was about to visit and organize the Miami purchase, Symmes doubted much whether a new town which he had laid out at South Bend, or Losantiville, would be best fitted for the county seat; but as the former was more central, thought that, if it were made the county town, "it would probably take the lead of the present village (Losantiville) *until the city can be made somewhat considerable.*"

But the mind of this persevering and just man, which had never been at ease since he first embarked in the enterprise of reclaiming the wilderness, was to be still further tried. The Kentuckians, seeing that he, by his clemency, his moderation, and his firmness, still remained on good terms with the Indians, and that settlers were flocking to his lands, represented the boasted fertility of the soil as a lie, and the safety of the settlers as a delusion. Some even threatened to make it so, by destroying every Indian they could find in the Miami purchase. The soldiers that were with him were idle, disobliging, and burdensome. His surveyors and settlers were "at times put to great shifts from want of bread." Continental certificates were rising, and his purchase was endangered by the difficulty of obtaining them. Many, that had bought of him on speculation, threw up their contracts. Then came information, that the British were urging the Indians to war; and his expected recruits did not come. Next was actual warfare, and his settlers left him fifty at one time. And, to complete his disquiet, his friends beyond the mountains wrote to him, that great attempts would be made to turn him from the bench; that he was universally disliked, almost hated by the settlers, and that his eastern co-proprietors were displeased by his management.

The perils of warfare Symmes was prepared to meet. At the beginning he had said, "Disasters I expect; if I can prevent a defeat, it is as much as I hope for the first year; we may talk of treaties as we please; I am certain we must fight or leave the ground." And now that the day of trial was near by he shrunk not. "What will be the issue," he says, "God only knows. I shall maintain the ground as long as I possibly can, ill prepared as we are. I can but perish, as many a better man has done before me."

But dislike and opposition, which his heart assured him he had not merited, he did not meet without suffering. While yet on his way to the West in the summer of 1788, he said of his accusers, that "the only revenge he wished to have against them was, that they might have equal success in their views, attended with equal calumny and censure;" for which he thought he had "pretty good security, if they undertook to do business for many;" and the bitterness, which he then tasted, was increased every year that he lived.

It was not destined, however, that this frontier post of the West should perish. In June, a force of a hundred and forty men was sent to Cincinnati; and Fort Washington was commenced, upon the spot since made classic by the Bazaar of Mistress Trollope. In December, this band was increased to four hundred and forty, by the arrival of General Harmer, who was about to march against the Indians of the Maumee and Wabash. At this time Losantiville contained eleven families and twenty-four bachelors, beside the garrison.

In January, 1790, the governor and judges arrived at that village for the purpose of organizing the county; which Symmes, whom "the governor complimented with the honor of naming" it, called Hamilton, after the well-known Alexander, then Secretary of the Treasury. At this time, also, the name of Losantiville was abandoned, and Symmes and St. Clair adopted that of Cincinnati, or, as the frontier wrote it, Cincinnati, 'in honor of the order of the Cincinnati, and to denote the chief place of their residence.' The name is a good one, but the place ill suited for the residence of these honorable "knights," whose constitution could not even withstand the semi-aristocratic air of the sea coast.

In the spring of 1799, various stations were formed and garrisoned in the neighborhood of Cincinnati; and General Harmar began to prepare for his campaign against the old Miami village at the junction of the St. Joseph's and St. Mary's, though he was not able to leave till the following September. Of his march, his ill success, amounting to a virtual defeat, and the outburst of savage warfare that followed, we shall not speak, as they may be found in any history of those times. The return of troops, mournful as it was, had its ray of comfort, however, for our adventurer. "It is impossible," he says, "to describe the lands over which the army passed; I am told that they are inviting to a charm."

But in 1791 came new troubles. It was found that it would be very hard, if not impossible, for Symmes and his comrades to pay for the million of acres, extending twenty miles only on the Ohio, as so much of it lay back from that stream that he could not find purchasers. And this brought him into conflict, in some way, with St. Clair, a self-willed and arbitrary man, who had, also, about this time, seen fit to proclaim military law in a "part of the town of Cincinnati;" an act which the judge thought "bordered on tyranny." And when Symmes offered to accompany the governor in the expedition for which he was then preparing, his excellency gave him an answer that led him to think that his presence would be rather disagreeable than otherwise. Next came the fear that Congress might open a land-office, and, by competing with, ruin him; and then the panic that resulted from St. Clair's defeat, on the fourth of November, 1791. When the news of that event reached the settlers, they left their farms with scarce an exception; dismay went through the whole West; and a savage warfare commenced, that for two years and eight months nearly equalled that of 1763. These things were all sources of great discomfort and loss to Symmes, who had, amid them all, but one cause of joy, and that a poor and unchristian one; the general dislike that was brought upon his old foe, St. Clair, whose pride, no doubt, he was very glad to see humbled.

We say nothing of the particulars of that general's defeat, because they are well known. The effect was, as we have said, dreadful. It almost stopped emigration; nor was confidence felt again until the decisive victory of Wayne, in August, 1794, which led to the treaty of Greenville in the same month of the year following.

When the knowledge that peace had been made with the Indians became general, however, "all Kentucky," as Symmes says, "and the back parts of Virginia and Pennsylvania ran mad with the expectation of the

land office opening" in the West; "they laugh me full in the face, when I ask them one dollar per acre for first rate land, and tell me they will soon buy as good for thirty cents." Even his North Bend settlers left him, to push their fortunes in those interior valleys, of which the soldiers of St. Clair and Wayne gave such descriptions. The mere prospect of a treaty diminished the population of this young town one half, and its completion gave his hopes almost a death-blow. So uniformly unfortunate was this founder of the most thriving colony of Ohio, that warfare and peace, prosperity and adversity, seemed equally to injure his interests; and, to complete the picture, he was now at variance with his friend and adviser, Dayton.

But we cannot follow any farther his individual fortunes. No man ever seemed in a surer path to wealth, influence, and honor than Judge Symmes when he first began his western operation. He was a man of good sense and very general information; just, kind, courageous, and persevering; but he had still some faults, which, coöperating with that fath-erly but inscrutable Providence which governs all our external fortunes, thwarted his projects, destroyed his most promising plans, and involved him in quarrels and lawsuits, so that at last he died poor and neglected.

But the cloud that is still upon his memory will one day rise. It is clear that, in despite of his failings, he was a true and high-minded man; and the future historian of Ohio will feel, as he examines his character, that it is one upon which he may dwell with pride.

From the conclusion of the treaty of Greenville, the rapid growth of the Miami valleys may be dated; for, after that time, but one great event occurred to embarrass the settlers of that region. This was the failure on the part of Symmes to pay for much of the land which he had sold. But even this difficulty was almost entirely removed by the pre-emption laws to which we have referred. The country lying about the junction of Mad river and the Miami, was one of the most valuable portions which were in this situation. Seventeen days after Wayne's treaty, that is, upon the 20th of August, 1795, this tract was purchased of Symmes by St. Clair, James Wilkinson, Jonathan Dayton, and Israel Ludlow, who, during the next month, sent surveyors to lay out their purchase; and, in November, Mr. Ludlow named and surveyed the town of "Dayton," now one of the most flourishing in the state. The settle-ment of the new town began in the following April.

When it was found, however, that this purchase would not be included in Symmes' patents, the proprietors refused to accept the benefit of the pre-emption law, and abandoned their contract; which was taken by Daniel C. Cooper, who realized a fortune from it.

From Cincinnati and Dayton, settlers spread in every direction. And it was not till the country was pretty well filled, that the towns began to grow; the population of Cincinnati increasing but two hundred persons from 1800 to 1805, while the whole region back received about twenty-five thousand emigrants during that time.

The great causes of the rapid advance of the Miami country, were its fertility, ease of access, healthful character, and uncommon amount of water power. The Muskingum and Scioto valleys were not so broad as

those of the Miamies; and the uplands between these last-named streams being upon limestone, while those about the former are based on sandstone, are richer, as well as more level. But the superiority of the Miami country, in respect to water-power, was still more striking. Though yet but poorly improved in proportion to its capabilities, it at this time moves a very great amount of machinery.

Turning from the fortunes of the two main settlements made in Ohio before the final peace with the Indians, we come to the history of Gallipolis. And here we must confess our extreme deficiency of materials, although many of the original settlers are still residing in their "city of the French." And to this deficiency is added confusion, which we have in vain tried to do entirely away.

In May or June, 1788, Joel Barlow left this country for Europe, "authorized to dispose of a very large body of land" in the West. In 1790, this gentleman distributed proposals in Paris, for the sale of lands, at five shillings per acre, which promised, says Volney, "a climate healthy and delightful; scarcely such a thing as frost in winter; a river called, by way of eminence, 'the Beautiful,' abounding in fish of an enormous size; magnificent forests of a tree from which sugar flows, and a shrub which yields candles; venison in abundance; without foxes, wolves, lions, or tigers; no taxes to pay; no military enrolments; no quarters to find for soldiers. Purchasers became numerous, individuals and whole families disposed of their property; and in the course of 1791, some embarked at Havre, others at Bordeaux, Nantes, or Rochelle," each with his title-deed in his pocket. Five hundred settlers, among whom were not a few carvers and gilders to his majesty, coachmakers, friseurs and peruke-makers, and other artisans and *artistes* equally well fitted for a backwoods life, arrived in the United States in 1791-92; and, acting without concert, traveling without the knowledge of the language, customs or roads, they at last managed to reach the spot designated for their residence, after expending nearly, or quite, the whole proceeds of their sales in France.

They reached the spot designated; but it was only to learn that the persons whose title-deeds they held did not own one foot of land, and that they had parted with all their worldly goods merely to reach a wilderness, which they knew not how to cultivate, in the midst of a people of whose speech and ways they knew nothing, and at the very moment when the Indians were carrying destruction to every white man's hearth. Without food, without land, with little money, no experience, and with want and danger closing around them, they were in a position that none but Frenchmen could be in without despair.

Who brought them to this pass? Volney says, the Scioto Company, which had bought of the Ohio Company; Mr. Hall says, in his *Letters from the West*, a company who had obtained a grant from the United States; and, in his *Statistics of the West*, the Scioto Company, which was formed from or by the Ohio Company, as a subordinate. Barlow, he says, was sent to Europe by the Ohio Company; and by them the lands in question were conveyed to the Scioto Company. Kilbourn says, "the Scioto Land Company, which intended to buy of Congress all the

tract between the western boundary of the Ohio Company's purchase and the Scioto, directed the French settlers to Gallipolia, supposing it to be west of the Ohio Company's purchase, though it proved not to be." The company, he tells us, failed to make their payments, and the whole proposed purchase remained with government.

The last we believe to be the true account. No other connection existed so far as we can learn, between the Ohio and Scioto companies than this, that some persons were stockholders in both; so that the want of good faith, charged by most writers on those of whom the French bought, cannot apply in any degree to the Ohio Company. Nor do we know that there was a want of faith at all; the lands were believed to be what Barlow represented them. A contract with government was to have been regularly made, and funds (as we learn) were collected toward the payment. But the treasurer of the company became bankrupt, and the funds were lost, how we know not. The spot to which the French were directed was supposed to be within the limits of the intended purchase; and, once there, the company, which had failed, could do nothing for them. As we hold it to be good philosophy, as well as true charity, to choose of two sufficient causes that which involves the least moral guilt, we should ascribe that mingling of private and company concerns, which seems to have ruined the latter, to want of care, and not want of honesty.

But, whatever doubt there may be as to the causes of the suffering, there can be none as to the sufferers. The poor gilders, and carvers, and peruke-makers, who had followed a jack-o'-lantern into a literally howling wilderness, found that their lives depended on their labor. They must clear the ground, build their houses, and till their fields. Now the spot upon which they had been located by the Scioto Company was covered, in part, with those immense buttonwood or sycamore trees, which are so frequent along the rivers of the West, and to remove which is no small undertaking even for the American woodman. The coachmakers were wholly at a loss; but at last, hoping to conquer by a *coup-de-main*, they tied ropes to the branches, and while one dozen pulled at them with might and main, another dozen went at the trunk with axes, hatchets, and every variety of edge-tool, and by dint of perseverance and cheerfulness overcame the monster; though not without some hair-breadth escapes; for, when a mighty tree, that had been hacked on all sides, fell, it required a Frenchman's heels to avoid the sweep of the wide-spread branches. But when they had felled the vast vegetable, they were little better off than before; for they could not move or burn it. And at last a good idea came to their aid; and while some chopped off the limbs, others dug, by the side of the trunk, a great grave, into which, with many a heave, they rolled their fallen enemy.

Their houses they did not build in the usual straggling American style, but made two rows or blocks of log cabins, each cabin being about sixteen feet square; while at one end was a larger room, which was used as council-chamber and ball-room.

In the way of cultivation they did little. The land was not theirs, and they had no motive to improve it; and, moreover, their coming was

in the midst of the Indian war. Here and there a little vegetable garden was formed; but their main supply of food they were forced to buy from boats on the river, by which means their remaining funds were sadly broken in upon. Five of their number were taken by the Indians; food became scarce; in the fall, a marsh behind the town sent up miasmata that produced fevers; then winter came, and despite Mr. Barlow's promise, brought frost in plenty; and by-and-by, they heard from beyond seas of the carnage that was desolating the firesides they had left. Never were men in a more mournful situation; but still, twice in the week, the whole colony came together, and to the sound of the violin danced off hunger and care. The savage scout that had been lurking all day in the thicket, listened to the strange music, and, hastening to his fellows, told them that the whites would be upon them, for he had seen them at their war-dance; and the careful Connecticut man, as he guided his broad-horn in the shadow of the Virginia shore, wondered what mischief "the red-varmiats" were at next; or, if he knew the sound of the fiddle, shook his head, as he thought of the whisky that must have been used to produce all that merriment.

But French vivacity, though it could work wonders, could not pay for land. Some of the Gallipolis settlers went to Detroit, others to Kaskaskia; a few bought their lands of the Ohio Company, who treated them with great liberality; and, in 1795, Congress, being informed of the circumstances, granted to the sufferers twenty-four thousand acres of land opposite Little Sandy river, to which, in 1798, twelve hundred acres more were added; which tract has since been known as *French Grant*.

The influence of this settlement upon the state was unimportant; but it forms a curious little episode in the Ohio history, and affords a strange example of national character.

But that portion of Ohio, which at this time is most flourishing, all things considered, is the Western Reserve, or Connecticut Reserve. This district was retained by Connecticut when she made her transfer to the United States, in 1786, though against the judgment of many of our wisest statesmen. In 1800, however, the right of jurisdiction was relinquished by the State to the Union, and patents were issued by the United States to the governor of Connecticut, for the use of those persons who had previously bought from her; by which means all difficulties were quieted. The Reserve included all the land north of the forty-first degree of north latitude, and extended west from Pennsylvania one hundred and twenty miles. It is a level and fertile country; and, though much of it was so wet, when covered with forests, that it was thought by many to be of little value, it has become dry as it has been opened to the sun, and presents at this time as fine an extent of arable and meadow land as can be seen anywhere; diversified, in the southern counties, by little lakes of crystal clearness; and, in point of cultivation, fences, and buildings, no district in the West surpasses, if there be any that equals the Reserve. This is in part owing to the habits of the original settlers, who were principally from Connecticut and Massachusetts; and in part to the fact that the ground has to be well cleared, ditched, and cultivated, in order that it may be productive. A soil that demands labor thus

It may be made to yield, and yields a large return when that is given, is the soil that will make its owners most independent; and that boasted fertility of the prairies, which requires little or no pains on the part of the farmer, however much it may suit man's love of ease, is a misfortune, not a blessing.

The section of Ohio which was last settled, was the northwest corner; that portion having been retained by the Indians until 1819. Since it came into the market, it has been rapidly filling up, the land being of an excellent quality, and well watered.

The idea of using steam in the navigation of the Ohio and Mississippi occurred to Mr. James Rumsey, of Virginia, as early as the year 1782. In 1784, his invention had been made known to Washington, who mentions it at the close of his letter to Governor Harrison, respecting internal improvements, dated October tenth of that year; and speaks of it more fully in a letter to Dr. Williamson, written upon the fifteenth of the following March. Mr. Rumsey also obtained, in 1784, patents from two states; but his plan, which was essentially to pump up water at the head of the boat, and force it out again at the stern, (which pumping and forcing were to be performed by an old fashioned atmospheric steam engine,) did not ever come into use, though the model of it worked well.

From that time until Fulton determined to try his steamboats on the western waters, people contented themselves with arks, keels, and flats. In 1811 and 1812, Mr. Fulton caused to be built at Pittsburg the *Orleans*, of four hundred tons. She left that place in December, 1812, and passing down the river, presented, for the first time, to the dwellers upon its banks, the spectacle of a self-moving boat. But, though this did very well for a voyage down the stream, it was found to be less available than the keelboat for the passage against the stream; and, from 1812 to 1816, it was thought hopeless to make a steamboat that should stem the current and ascend the rapids of the Mississippi and Ohio. In 1816, however, Captain Henry M. Shreve (since famous as the inventor of the snagboats, or "Uncle Sam's toothpullers," as the river-men call them) built at Wheeling the *Washington*, having one large boiler on her upper deck; and, though she was so unlucky as to burst this boiler while at Marietta on her way down, she reached New Orleans in safety; and, returning to the Falls, first convinced the merchants and mariners of the West that such boats might supersede the keels. But even after this many doubted; and when the first boat, the *Vesta*, was built at Cincinnati, in 1817, those best fitted to judge, scoffed at the idea that she could bring freight up stream cheaper than the keelboats. "Gentlemen," said the builder, a sanguine, and, as they thought, mad man, "you now pay five and six dollars a hundred from New Orleans; but we shall some of us live to see steam doing the work for one half that." He and they have lived to see it reduced to one eighth.

Samuel Brady, the hero of the following adventure, was over six feet in height, with light-blue eyes, fair skin, and dark hair: he was remarkably straight and athletic, a bold and vigorous backwoodsman, inured to all the toils and hardships of a frontier life, and had become very obnoxious

ious to the Indians, from the numerous successful attacks on their war parties, and from shooting them in his hunting excursions, whenever they crossed his path, or came within reach of his rifle; for he was personally engaged in more hazardous contests with the savages, than any other man west of the mountains, excepting Daniel Boone. He was in fact an "Indian hater," as many of the borderers were. This class of men appear to have been more numerous in this region, than in any other portion of the frontiers, and this doubtless arose from the slaughter at Bradlock's defeat, and the numerous murders and attacks on defenseless families that for many years followed that disaster. Brady was also a very successful trapper and hunter, and took more beavers than any of the Indians themselves. In one of his adventurous excursions to the waters of the Beaver river, or Mahoning, which in early days so abounded with the animals of this species, that it took its name from the fact, it so happened that the Indians surprised him in his camp and took him prisoner. To have shot or tomahawked him on the spot would have been but a small gratification of satiating their revenge by burning him at a slow fire, in the presence of all the Indians of their village. He was therefore taken alive to their encampment, on the west bank of the Beaver river, about a mile and a half from its mouth.

After the usual exultations and rejoicings at the capture of a noted enemy, and causing him to run the gauntlet, a fire was prepared, near which Brady was placed, after being stripped naked, and with his arms unbound. Previously to tying him to the stake, a large circle was formed around him, consisting of Indian men, women and children, dancing and yelling and uttering all manner of threats and abuse that their small knowledge of the English language could afford. The prisoner looked on these preparations of death, and on his savage foes, with a firm countenance and a steady eye, meeting all their threats with a truly savage fortitude. In the midst of their rejoicing, a squaw of one of their chiefs came near him with a child in her arms. Quick as thought, and with intuitive presence, he snatched it from her and threw it into the midst of the flames. Horror-struck at the sudden outrage, the Indians simultaneously rushed to rescue the infant from the fire. In the midst of this confusion, Brady darted from the circle, overturning all that came in his way, and rushed into the adjacent thickets with the Indians at his heels. He ascended the steep side of the present hill, amidst a shower of bullets, and darting down the opposite declivity, secreted himself in the deep ravine and laurel thickets that abound for several miles to the west of it. His knowledge of the country and wonderful activity enabled him to elude his enemies, and reach the settlements on the South of the Ohio river, which he crossed by swimming. The hill near whose base this adventure is said to have happened, still goes by his name, and the incident is often referred to by the traveler, as the coach is slowly dragged up its side.

Captain Brady seems to have been as much the Daniel Boone of the northeast part of the valley of the Ohio, as the other was of the southwest, and the country is equally full of traditionary legends of his hardy adventures and hair-breadth escapes, although he has lacked a Flint to

chronicle his fame, and transmit it to posterity in the glowing and beautiful language of that distinguished analyst of the West. From undoubted authority, it seems the following incident actually transpired :

Brady's residence was on Chartier's creek, on the south side of the Ohio, and being a man of Herculean strength, courage, and activity, he was generally selected as the leader of the hardy borderers in all their incursions into the Indian territory north of the river. On this occasion, which was about the year 1780, a large party of warriors from the falls of the Cuyahoga, and the adjacent country, had made an inroad on the south side of the Ohio river, in the lower part of what is now Washington county, but which was then known as the settlement of "Catfish Camp," after an old Indian of that name, who lived there when the whites first came into the country, on the Monongahela river. This party had murdered several families, and with the plunder had recrossed the Ohio before effectual pursuit could be made. By Brady a party was directly summoned, of his chosen followers, who hastened on after them ; but the Indians having one or two days the start, he could not overtake them in time to arrest their return to their villages. Near the spot where the town of Ravenna now stands, the Indians separated into two parties, one of which went to the north, and the other the west, to the falls of the Cuyahoga. Brady's men also divided ; a part pursued the northern trail, and a part went with their commander to the Indian village on the river in the present township of Northampton, in Portage county.

As he approached the chasm, Brady, knowing that life or death was in the effort, concentrated his mighty powers and leaped the stream at a single bound. It so happened that, in the opposite cliff, the leap was favored by a low place, into which he dropped, and grasping the bushes, he thus helped himself to ascend to the top of the cliff. The Indians, for a few moments, were lost in wonder and admiration, and before they had recovered their recollection, he was halfway up the side of the opposite hill, but still within the reach of their rifles. They could easily have shot him any moment before, but being bent on taking him alive, for torture, and to glut their long delayed revenge, they forbore the use of the rifle ; but now seeing him likely to escape, they all fired upon him ; one bullet wounded him severely in the hip, but not so badly as to prevent his progress. The Indians having to make a considerable circuit before they could cross the stream, Brady advanced a good distance ahead. His limb was growing stiff from the wound, and as the Indians gained on him, he made for the pond which bears his name, and plunged in, swam under water a considerable distance, and came up under the trunk of a large oak, which had fallen into the pond. This, although leaving only a small breathing place to support life, completely sheltered him from their sight. The Indians tracing him by the blood to the water, made diligent search all around the pond, but finding no signs of his exit, finally came to the conclusion that he had sunk and was drowned. As they were at one time standing on the very tree beneath which he was concealed, Brady, understanding their language, was very glad to hear the result of their deliberations, and after they had gone, weary, lame, and hungry, he made good his retreat to his own home. His followers, also

returned in safety. The chasm across which he leaped is in sight of the bridge, at Franklin Mills, and is known in all that region by the name of "Brady's Leap."

The following account of the desperate struggle of Adam Poe is from M'Clung's interesting sketches :

About the middle of July, 1782, seven Wyandotts crossed the Ohio a few miles above Wheeling, and committed great depredations upon the southern shore, killing an old man whom they found alone in his cabin, and spreading terror throughout the neighborhood. Within a few hours after their retreat, eight men assembled from different parts of the small settlement and pursued the enemy with great expedition. Among the most active and efficient of the party were two brothers, Adam and Andrew Poe. Adam was particularly popular. In strength, action, and hardihood, he had no equal — being finely formed, and inured to all the perils of the woods.

They had not followed the trail far, before they became satisfied that the depredators were conducted by Big Foot, a renowned chief of the Wyandott tribe, who derived his name from the immense size of his feet. His height considerably exceeded six feet, and his strength was represented as Herculean. He had also five brothers, but little inferior to himself in size and courage, and as they generally went in company, they were the terror of the whole country. Adam Poe was overjoyed at the idea of measuring his strength with that of so celebrated a chief, and urged the pursuit with a keenness that quickly brought him into the vicinity of the enemy. For the last few miles the trail had led them up the southern banks of the Ohio, where the footprints in the sand were deep and obvious, but when within a few hundred yards of the point at which the whites as well as the Indians were in the habit of crossing, it suddenly diverged from the stream, and stretched along a rocky ridge, forming an obtuse angle with its former direction. Here Adam halted for a moment, and directed his brother and the other young men to follow the trail with proper caution, while he himself still adhered to the river path, which led through clusters of willows directly to the point where he supposed the enemy to lie. Having examined the priming of his gun, he crept cautiously through the bushes, until he had a view of the point of embarkation. Here lay two canoes, empty and apparently deserted. Being satisfied, however, that the Indians were close at hand, he relaxed nothing of his vigilance, and quickly gained a jutting cliff, which hung immediately over the canoes. Hearing a low murmur below, he peered cautiously over, and beheld the object of his search. The gigantic Big Foot lay below him in the shade of a willow, and was talking in a low deep tone to another warrior, who seemed a mere pigmy by his side. Adam cautiously drew back, and cocked his gun. The mark was fair — the distance did not exceed twenty feet, and his aim was unerring. Raising his rifle slowly and cautiously, he took a steady aim at Big Foot's breast, and drew the trigger. His gun flashed. Both Indians sprang to their feet with a deep interjection of surprise, and for a single second all three stared upon each other. This inactivity, however, was soon over. Adam was too much hampered by the bushes

to retreat, and setting his life upon a cast of the die, he sprung over the bush which had sheltered him, and summoning all his powers, leaped boldly down the precipice and alighted upon the breast of Big Foot with a shock which bore him to the earth. At the moment of contact, Adam had also thrown his right arm around the neck of the smaller Indian, so that all three came to the earth together.

At that moment a sharp firing was heard among the bushes above, announcing that the other parties were engaged, but the trio below were too busy to attend to anything but themselves. Big Foot was for an instant stunned by the violence of the shock, and Adam was enabled to keep them both down. But the exertion necessary for that purpose was so great that he had no leisure to use his knife. Big Foot quickly recovered, and without attempting to rise, wrapped his long arms around Adam's body, and pressed him to his breast with the crushing force of a boa constrictor! Adam, as we have already remarked, was a powerful man, and had seldom encountered his equal, but never had he yet felt an embrace like that of Big Foot. He instantly relaxed his hold of the small Indian, who sprang to his feet. Big Foot then ordered him to run for his tomahawk, which lay within ten steps, and kill the white man, while he held him in his arms. Adam, seeing his danger, struggled manfully to extricate himself from the folds of the giant, but in vain. The lesser Indian approached with his uplifted tomahawk, but Adam watched him closely, and as he was about to strike, gave him a kick so sudden and violent, as to knock the tomahawk from his hand, and send him staggering back into the water. Big Foot uttered an exclamation in a tone of deep contempt at the failure of his companion, and raising his voice to its highest pitch, thundered out several words in the Indian tongue which Adam could not understand, but supposed to be directions for a second attack. The lesser Indian now again approached, carefully shunning Adam's heels, and making many motions with his tomahawk, in order to deceive him as to the point where the blow would fall. This lasted for several seconds, until a thundering exclamation from Big Foot compelled his companion to strike. Such was Adam's dexterity and vigilance, however, that he managed to receive the tomahawk, in a glancing direction, upon his left wrist, wounding him deeply but not disabling him. He now made a sudden and desperate effort to free himself from the arms of the giant, and succeeded. Instantly snatching up a rifle (for the Indian could not venture to shoot for fear of hurting his companion) he shot the lesser Indian through the body. But scarcely had he done so when Big Foot arose, and placing one hand upon his collar and the other upon his hip, pitched him ten feet into the air, as he himself would have pitched a child. Adam fell upon his back at the edge of the water, but before his antagonist could spring upon him, he was again upon his feet, and stung with rage at the idea of being handled so easily, he attacked his gigantic antagonist with a fury which for a time compensated for inferiority of strength. It was now a fair fist fight between them, for in the hurry of the struggle neither had leisure to draw their knives. Adam's superior activity and experience as a pugilist, gave him great advantage. The Indian struck awkwardly, and

finding himself rapidly dropping to leeward, he closed with his antagonist, and again hurled him to the ground. They quickly rolled into the river, and the struggle continued with unabated fury, each attempting to drown the other. The Indian, being unused to such violent exertion and having been much injured by the first shock in his stomach, was unable to exert the same powers which had given him such a decided superiority at first; and Adam, seizing him by the scalp lock, put his head under water, and held it there, until the faint struggles of the Indian induced him to believe that he was drowned, when he relaxed his hold and attempted to draw his knife. The Indian, however, to use Adam's own expression, "had only been possumming!" He instantly regained his feet and in his turn put his adversary under.

In the struggle, both were carried out into the current beyond their depth, and each was compelled to relax his hold and swim for his life. There was still one loaded rifle upon the shore, and each swam hard in order to reach it, but the Indian proved to be the most expert swimmer, and Adam, seeing that he should be too late, turned and swam out into the stream, intending to dive, and thus frustrate his enemy's intention. At this instant, Andrew, having heard that his brother was alone in a struggle with two Indians, and in great danger, ran up hastily to the edge of the bank above, in order to assist him. Another white man followed him closely, and seeing Adam in the river, covered with blood, and swimming rapidly from shore, mistook him for an Indian and fired upon him, wounding him dangerously in the shoulder. Adam turned and seeing his brother, called loudly upon him to "shoot the big Indian upon the shore." Andrew's gun, however, was empty, having just been discharged. Fortunately, Big Foot had also seized the gun with which Adam had shot the lesser Indian, so that both were upon an equality. The contest now was who should load first. Big Foot poured in his powder first, and drawing his ramrod out of its sheath in too great a hurry threw it into the river, and while he ran to regain it, Andrew gained an advantage. Still the Indian was but a second too late, for his gun was at his shoulder, when Andrew's ball entered his breast. The gun dropped from his hands and he fell forward upon his face upon the very margin of the river. Andrew, now alarmed for his brother, who was scarcely able to swim, threw down his gun, and rushed into the river in order to bring him ashore—but Adam, more intent upon securing the scalp of Big Foot as a trophy, than upon his own safety, called loudly upon his brother to leave him alone and scalp the big Indian, who was now endeavoring to roll himself into the water, from a romantic desire, peculiar to the Indian warrior, of securing his scalp from the enemy. Andrew, however, refused to obey, and insisted upon saving the living, before attending to the dead. Big Foot, in the meantime, had succeeded in reaching the deep water before he expired, and his body was borne off by the waves, without being stripped of the ornament and pride of an Indian.

Not a man of the Indians had escaped. Five of Big Foot's brothers, the flower of the Wyandott nation, had accompanied him in the expedition, and all perished. It is said that the news of this calamity threw the whole tribe into mourning. Their remarkable size, their courage,

and their superior intelligence, gave them immense influence, which, greatly to their credit, was generally exerted on the side of humanity. Their powerful interposition had saved many prisoners from the stake, and had given a milder character to the warfare of the Indians in that part of the country. A chief of the same name was alive in that part of the country so late as 1792, but whether a brother or son of Big Foot, is not known. Adam Poe recovered of his wounds, and lived many years after his memorable conflict; but never forgot the tremendous "hug" which he sustained in the arms of Big Foot.

The following description of the scenery of the Ohio river is by Audobon, the naturalist:

"The natural features of North America are not less remarkable than the moral character of her inhabitants; and I cannot find a better subject than one of those magnificent rivers that roll the collected waters of her extensive territories to the ocean.

"When my wife, my eldest son (then an infant), and myself, were returning from Pennsylvania to Kentucky, we found it expedient, the waters being unusually low, to provide ourselves with a *skiff*, to enable us to proceed to our abode at Henderson. I purchased a large, commodious, and light boat of that denomination. We procured a mattress, and our friends furnished us with ready-prepared viands. We had two stout negro rowers, and in this trim we left the village of Shippingport, in expectation of reaching the place of our destination in a very few days.

"It was in the month of October. The autumnal tints already decorated the shores of that queen of rivers, the Ohio. Every tree was hung with long and flowing festoons of different species of vines, many loaded with clustered fruits of varied brilliancy, their rich bronzed carmine mingling beautifully with the yellow foliage, which now predominated over the yet green leaves, reflecting more lively tints from the clear stream than ever landscape painter portrayed or poet imagined.

"The days were yet warm. The sun had assumed the rich and glowing hue which at that season produces the singular phenomenon called 'Indian summer.' The moon had rather passed the meridian of her grandeur. We glided down the river, meeting no other ripple of the water than that formed by the propulsion of our boat. Leisurely we moved along, gazing all day on the grandeur and beauty of the wild scenery around us.

"Now and then a large cat-fish rose to the surface of the water in pursuit of a shoal of fry, which, starting simultaneously from the liquid element, like so many silvery arrows, produced a shower of light, while the pursuer with open jaws seized the stragglers, and with a splash of his tail, disappeared from our view. Other fishes we heard uttering beneath our bark a rumbling noise, the strange sounds of which we discovered to proceed from the white perch, for on casting our net from the bow, we caught several of that species, when the noise ceased for a time.

"Nature, in her varied arrangements, seems to have felt a partiality towards this portion of our country. As the traveler ascends or descends

the Ohio, he cannot help remarking, that, alternately, nearly the whole length of the river, the margin, on one side, is bounded by lofty hills and a rolling surface; while, on the other, extensive plains of the richest alluvial lands are seen as far as the eye can command the view. Islands of varied size and form rise here and there from the bosom of the water, and the winding course of the stream frequently brings you to places where the idea of being on a river of great length changes to that of floating on a lake of moderate extent. Some of these islands are of considerable size and value; while others, small and insignificant, seem as if intended for contrast, and as serving to enhance the general interest of the scenery. These little islands are frequently overflowed during great *freshets* or floods, and receive at their head prodigious heaps of drifted timber. We foresaw with great concern the alterations that cultivation would soon produce along those delightful banks.

"As night came, sinking in darkness the broader portions of the river, our minds became affected by strong emotions, and wandered far beyond the present moments. The tinkling of bells told us that the cattle which bore them were in search of food, or returning to their distant homes. The hooting of the great owl, or the muffled noise of its wings as it sailed smoothly over the stream, were matters of interest to us; so was the sound of the boatman's horn, as it came winding more and more softly from afar. When daylight returned, many songsters burst forth with echoing notes, more and more mellow to the ear. Here and there the lonely cabin of a squatter met the eye, giving note of commencing civilization. The crossing of the stream by a deer foretold how soon the hills would be covered with snow.

"Many sluggish flat-boats we overtook and passed — some laden with produce from the different head-waters of the small rivers that pour their tributary streams into the Ohio; others, of less dimensions, crowded with emigrants from distant parts, in search of a new home. Purer pleasures I never felt; nor have you, reader, I ween, unless indeed you have felt the like, and in such company.

"The margins of the shores and of the rivers were at this season amply supplied with game. A wild turkey, a grouse, or a blue-winged teal, could be procured in a few moments, and we fared well, for whenever we pleased, we landed, and struck up a fire, and, provided as we were with the necessary utensils, procured a good repast.

"Several of these happy days passed, and we nearer our home, when, one evening, not far from Pigeon Creek (a small stream which runs into the Ohio, from the state of Indiana), a loud and strange noise was heard, so like the yells of Indian warfare, that we pulled at our oars, and made for the opposite side as fast as possible. The sounds increased; we imagined we heard cries of "murder;" and as we knew that some depredations had lately been committed in the country by dissatisfied parties of aborigines, we felt for a while extremely uncomfortable. Ere long, however, our minds became more calmed, and we plainly discovered that the singular uproar was produced by an enthusiastic set of Methodists, who had wandered far out of the common way, for the purpose of holding one of their annual camp-meetings, under the shade of a beech for-

ed. Without meeting with any other interruption, we reached Henderson, distant from Shippingport by water about two hundred miles.

"When I think of these times, and call back to my mind the grandeur and beauty of those almost uninhabited shores; when I picture to myself the dense and lofty summits of the forest, that everywhere spread along the hills, and overhung the margins of the stream, unmolested by the axe of the settler; when I know how dearly purchased the safe navigation of that river has been by the blood of many worthy men; when I see that no longer any aborigines are to be found there, and that the vast herds of elks, deer and buffaloes, which once pastured on these hills and in these valleys, making for themselves great roads to the several salt springs, have ceased to exist; when I reflect that all this grand portion of our Union, instead of being in a state of nature, is now more or less covered with villages, farms, and towns, where the din of hammers and machinery is constantly heard; that the woods are fast disappearing under the axe by day, and the fire by night; that hundreds of steamboats are gliding to and fro, over the whole length of the majestic river, forcing commerce to take root and to prosper at every spot; when I see the surplus population of Europe coming to assist in the destruction of the forest, and transplanting civilization into its dark recesses; when I remember that these extraordinary changes have all taken place in the short period of twenty years, I pause, wonder, and although I know all to be the fact, can scarcely believe its reality."

At an early period of our national existence, the bountiful soil and mild climate of Tennessee attracted the notice of adventurers. In 1771, during our colonial dependence, several settlements were made north of Holston river, in that part of Tennessee which now includes the counties of Sullivan and Hawkins; some settlements were also made about the same time south of the same river. The pioneers who thus adventured were principally from North Carolina. Although the country above mentioned properly belonged to North Carolina, the settlers north of the Holston agreed among themselves to adhere to Virginia, and be governed by her laws, as well for protection against the Indians as against the numerous bands of horse-thieves and other marauders who infested the borders. Those who settled south of the Holston, considered North Carolina as the parent state or colony, but they were governed by laws of their own making. Although they acknowledged separate jurisdictions, they were united by a common interest and for mutual defense, and in the prosecution of their bold enterprise of effecting permanent settlements in what might be called an enemy's country, they encountered hardships and perils of no common sort, and overcame difficulties which appeared at first almost insurmountable.

The settlements on both sides of the Holston gradually increased by the accession of new emigrants, notwithstanding they were exposed to the attacks and inroads of their savage neighbors; but in 1774, emigration received a check, in consequence of the combined efforts of the Shawnee and other hostile tribes, who penetrated as far as Sullivan county, committing numerous depredations upon the property of such of the settlers as were unable to oppose effectual resistance, and sacrificing

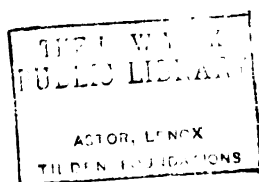
the lives of those who were unable to escape from their murderous assaults.

In this state of things, the government of Virginia, in July, 1774, ordered an expedition against the hostile tribes, the command of which was given to Col. Andrew Lewis. To coöperate in this expedition, upon the success of which, in a great degree, depended the safety of the frontier settlements, Capt. Evan Shelby raised a company of fifty men, in that part of Tennessee now called Sullivan and Carter counties. They set out about the seventeenth of August, and in the beginning of September formed a junction with Col. Christian, on New River. Animated by that bold and daring spirit, which subsequently, in more brilliant scenes, animated their descendants, they bore a part in the celebrated battle of the Great Kanawha, on the tenth of October, where the Indians were defeated with considerable loss. In this battle, the late Gen. James Robertson and Col. Valentine Sevier (then both non-commissioned officers) were distinguished for their vigilance, activity, and bravery — qualities for which they were more particularly distinguished in subsequent contests with the Indians in Tennessee. This battle was fought at the time the first Congress sat in Philadelphia, and its result had the effect of suppressing the depredations of the Indians until July, 1776, when the colonists, by their representatives, declared themselves independent, and pledged "their lives, fortunes, and sacred honor," to maintain their independence. The war of the revolution had now assumed such an aspect, that the British government did not hesitate, through their emissaries, to stir up the Indians to renewed hostilities upon the frontiers; acting upon the maxim that it had the right to employ "all the means which God and nature had put into its hands."

Influenced by a British agent named Cameron, the Cherokees, then a powerful tribe, prepared for war, but their intention was happily frustrated. About the first of July, three men, namely, Isaac Thomas, William Fawley, and John Blakenship, who had resided several years among the Cherokees, left the nation, and making their way to the white settlements, communicated the information that twelve hundred warriors were armed and equipped, and ready to march against the frontiers. The departure of these men caused the Indians to postpone their march for two weeks, which gave time to the whites to prepare for their reception by the construction of forts, and other means of defense, and at the same time, two companies from Washington county, Virginia, under the command of Captains James Thompson and William Cooke, and one company from what is now called Sullivan county, Tennessee, under Captain James Shelby, amounting together to one-hundred and seventy-six men, marched towards Long Island, in the Holston, for the purpose of watching the motions of the enemy. When they were arrived within a mile of the island, they met the Indians, about eight hundred in number, advancing under the command of *Dragging Canoe*, a daring and experienced chief. The Indians, relying upon their superiority of numbers, did not observe their usual caution, but flushed with the hopes of anticipated victory, rushed upon their antagonists in great disorder. The result proved that the "race is not always to the swift, or the battle to



THE LAST ARROW.



the strong." Both parties engaged hand to hand, but a few minutes decided the battle in favor of the whites. Thirty-six Indians were killed on the spot, the rest fled in great confusion, seeking refuge among the hills and mountains. The other division of the Indian force, consisting of four hundred warriors, attacked the fort at the Sycamore shoals, but were gallantly repulsed by Robertson and Sevier.

Thus ended the invasion of the Cherokees, to the great disappointment of Cameron, who had no doubt of its successful issue, and that the whites would be compelled to abandon the country. Notwithstanding their defeat in these two instances, the Indians, led on by false hopes, and urged by British agents, continued to harass the frontiers, and in consequence of these aggressions, the governments of Virginia and North Carolina, in the fall of 1776, raised a force of between two and three thousand men for the purpose of attacking the Cherokee towns. This army was placed under the command of Col. Christian, who advanced into the Indian country. The Cherokees, who had not recovered from their defeat at Long Island and the Sycamore shoals, could not be brought to a general action, and they at length sued for peace. The propositions to bury the tomahawk were listened to by Col. Christian, and it was agreed that a treaty should be held the ensuing spring. Owing to the opposition of *Dragging Canoe*, "whose voice was still for war," the treaty was postponed until the ensuing summer. This restless and warlike chief removed, with three or four hundred warriors, who adhered to his fortunes, to the Chickamauga, a branch of the Tennessee.

In the latter part of June, 1777, the Cherokees assembled to the number of twelve or thirteen hundred, at Great Island, the place appointed for holding the treaty. The governments of North Carolina and Virginia at the same time ordered between seven and eight hundred militia to assemble at the same place, in order, by a display of force, to overawe the Indians, and afford protection to the commissioners, who were Cols. Avery and Lanier, and Major Winston, on the part of North Carolina, and Cols. Christian, Preston, and Evan Shelby on the part of Virginia. A treaty of peace was finally concluded in August, but such was the condition of the country in consequence of the revolutionary struggle, and such the influence of British emissaries, that the frontiers enjoyed the blessings of peace but a short time.

Whilst those events were passing, *Dragging Canoe*, whose enmity to the whites never slumbered, was not inactive, and during the year 1778, his party having considerably increased in numbers, he frequently harassed the frontiers by his predatory incursions, and many of the whites fell victims to the tomahawk and scalping-knife. In the beginning of the year 1779, this warlike chief could number among his followers upward of one thousand warriors. Their depredations extended from Georgia to Pennsylvania, and consequently upon the whole of this extensive frontier, life and property were insecure. The governments of North Carolina and Virginia determined to make another effort — vigorous as far as their then circumstances and means would permit. They accordingly raised a force of one thousand men, under the command of Col. Evan Shelby, and a regiment of twelve months' men under the command of

Col. John Montgomery. This force was ordered to proceed against the Indians. It is worthy of remark, that nearly the whole of the supplies necessary for the campaign, were purchased upon the individual responsibility, and through the personal exertions of Isaac Shelby, late governor of Kentucky, whose active patriotism was displayed during the trying scenes of the revolution, and in the border warfare of that period, as well as during the late war with Great Britain, when, with the gallant Harrison, he triumphed upon the Thames. The army assembled at the mouth of Big Creek, in Tennessee, about four miles from where the town of Rogersville now stands, about the 10th of April. Having made all their preparations, they descended the river in canoes and pirogues, with so much caution and celerity, that they completely surprised the enemy, who fled in every direction without giving battle. They were, however, hotly pursued, and about forty were slain. Their towns were burned, their corn destroyed, and their cattle driven off. This victory dispersed the Indian force, and for some time gave peace to Tennessee, and opened a communication with the settlements in Kentucky. Although, for some years after, the war was frequently renewed, the tide of emigration continued to swell; the permanency of the settlements was secured, and in the year 1796, Tennessee was admitted into the Union as a sovereign and independent state.

Knowing the fecundity of the valley of the Mississippi in Indian antiquities, the American Antiquarian Society has ever had an eye to the west and southwest — eagerly soliciting all information in relation to the numerous and powerful tribes, whose thousands once trod the vale of the "Father of Waters," and whose traces of power still exist in imperishable mounds which abound in our vicinity. How much the desires of this distant society, expressed through the communications of its secretary and librarian, have contributed toward forming the determination to investigate, by actual examination, the subject of Indian antiquities, it is not for us to say — although we would gladly wish the same influence could reach every section of our country, where the Indian mound or tradition still lingers.

On the 18th of May, 1838, a party of literary and scientific gentlemen proceeded from Natchez to the river bottom, between the bluff and the bank of the Mississippi, about three and a half miles below the city, for the purpose of examining two square mounds, that rise from eleven to sixteen feet above the bottom on which they are based. The mounds are nearly a mile from the river, and about one eighth of a mile from the inland bluff. They stand twenty-three perches apart, ranging north and south with each other, the larger being four perches square, and the other half that size, and five feet less in height.

An excavation was made in the centre of the smaller one to the depth of eleven feet, through aluminous earths, evidently heaped up from the surrounding surface; — at this depth were found the indisputable evidence of river deposits, and indications of having reached the river level. Numerous pieces of Indian pottery were found, while digging to that depth; — as the materials of both structures were similar, no excavation was made in the larger mound.

A river bottom lake is now in existence, about two hundred perches north of these mounds, and probably once overflowed the plain on which these mounds are now found. The supposition is, that these mounds, once surrounded by water, were places of refuge to which the mound-builders retreated to be more secure against surprise in time of war—the waters of the lake serving as a fosse, and the mounds as ramparts. Had a rampart alone been the object, the adjacent bluff would have furnished one more lofty, but less inaccessible.

On the 28th of May, ten days subsequent, a large company of gentlemen, about twenty-five in number, repaired to the great mounds in Selsertown.

The distance of the mound from Natchez is about ten miles, bearing east north-east. The road is the one leading to Fayette through Selsertown. Leaving the village of Washington, and passing the residence of W. P. Mellen, Esq., on the right, a mile and a half from the latter place, brought the company in view of the majestic mound, lifting its warlike bastions and tower in broad outline about a mile to the left of the main road to Selsertown. Turning down a lane at right angles to the great road, the plantation of Walter Irvin, sen., Esq., of Natchez, was reached—on which, and near the residence of Walter Irvin, jr., Esq., the mound is located.

The appearance of the mound, approached from the Fayette road, is that of a long straight battery of earth, with sloping, regular front and platform at the top, with some moderate elevations or towers upon the terrace, the whole of which is overlooked by an abrupt tower at the western end toward Natchez, rising nearly as high above the terrace or platform as that does above the circumjacent plain. The outline on the southern side, first approached, is of the most imposing and martial character. The traces of design are so apparent that every observer must involuntarily feel that this is other than a natural erection. So enormous a pile, either thrown up or carved from a primitive hill, in the singular shape in which time still spares it to remain, must have been the creation of heads that planned, and of a countless multitude of hands that labored through long periods of time. The magnitude of the mound is such that its relative heights do not at first impress the visitor with their full proportions; but, after a struggle up the steep face of the mound to the broad terrace, which in its turn becomes the base of the great western tower and of four other smaller mounds or towers—after a glance at the general outline of the foundation mound, which bears the resemblance of a parallelogram, having a regular southern side, and an irregular bastion front on the north—and after walking over the terrace which includes an area of about five acres, gazing up at the stern western tower, itself a parallelogram, (once perhaps a regular and perfect one,) of about five rods in length by three in breadth—the mind becomes fully aware of the vastness of the creation and renders a full measure of homage to the proud unknown nation that left behind them such a mysterious hieroglyphic of power, speaking a language of grandeur, yet without a relic of a single word that the present age may translate into the elements of aboriginal history.

When walking on this vast terrace one can but think of thousands who trod the same earth centuries ago, of the battle songs that might have rolled in thundering volumes into the still air above, of the chant over the dead, of the ceremonies of a wild and mysterious worship—and of the dreadful hour, when before the tempest of battle or the anger of pestilence, national power melted away, and the surge of empire, in its flow to other lands, ebbed from this mural throne, leaving it voiceless and a desert.

The height of the great terrace, from its base, is forty-five feet by measurement, and of the great tower above the terrace, thirty-eight feet, making eighty-three feet in all above the plain.

The great length of time the skeletons had been immured, and the consequent rottenness of the bones, prevented the gentlemen from obtaining many perfect specimens of cræneology. Indeed, the hope of getting out a whole one, seemed almost abandoned, until the diggers came upon the lower limbs of a full-sized male about a foot and a half below the present surface, from which considerable earth must have been washed in years past. These were followed up to the head, which, by great care and dexterity, was taken unbroken from its grim pillow, by Mr. James Tooley, Jr. This acquisition was hailed with acclamation, as its developments proved its aboriginal origin, and afforded some probability of what race the mound builders were. It was a compressed skull, after the Flat Head custom, but with a different fashion or compression. The forehead was truly peculiar and imposing, with a broad and lofty field of intellectuality—but with a sad falling off behind. Such a head should always have been turned edgewise in a hurricane. The skull, after a careful cleansing, was immersed in a chemical glutinous menstruum, to preserve if possible, and strengthen the parts entire.

The sides of the larger foundation mound are to a considerable extent, if not wholly, incased, about one foot beneath the surface of the soil, with a sort of rubble, resembling slack-baked bricks, without much regularity of form, as if laid upon the original steep faces of the mound to prevent the washing away, in sudden showers, of the soil. This rude roofing, formed of a clay base, and sometimes mixed with hair or moss, like modern mortar, may once have been continuous, or it may not have been otherwise than it is now found; in either case, it was a sufficient security against the action of rain water. The soil above this rubble, was filled with fragments of pottery, pieces of human and animal bones, charcoal, and the debris of the top of the mound and of those smaller towers which would seem to have been almost entirely washed away. Beneath the rubble, on digging into the sides of the mound, no remains of pottery or bones were to be found.

Years ago, gentlemen who then resided in the vicinity of the mound, saw evidence of the existence of a fosse at the foot of the mound, at least on the eastern end; probably a ditch originally encircled the entire mound, which might have been filled to any depth with the rain water that would necessarily fall on so large an area as five acres, carried off by the rubble roofs of the sides. The terrace of the mound, its sides and the fields around it, having, for more than half a century, been cultivated

by the plow, it would not be wonderful that nearly all the traces of a continuous ditch should have been filled up.

The pottery found upon the surface of the sides, or from one or two feet below the surface, is of a rare, and oftentimes beautiful structure. It is generally in broken pieces, yet large enough to show the shape and curve of the circumference of the vessels of which those pieces were a part. In some cases, the beauty of the shape of the vessel was strikingly evident, and could not be surpassed by any modern manufacturer. It was not glazed, but perfectly smooth, as if some preparation had been spread over the surface of the material previous to the hardening process. The outsides of most of the vessels were ornamented with lines, sometimes drawn parallel to the brim, five or six circles, in the space of an inch in width, extending round the bowl, or by figures of triangular lines and checker-work, elaborately covering most of the outsides of the vessels. The pottery was made of different materials and of different colors; some pieces were brick-colored; others slate-colored; others white. Pieces were found that were made of sea-shells ground into fine *laminæ*, and held together by some affinitive ingredient not yet analyzed.

The smaller mounds upon the terrace of the larger one, are irregularly situated at various points on the bastion or battery walls, like look-out or watch-towers. Near the foot of the one situated at the northeastern corner, were found a number of human skeletons, about one or two feet beneath the surface of the earth, with their heads lying in an eastern direction, with some exceptions, where one skeleton would be lying across another. The bones were in a lying position, having never been disturbed since interment—although the plow has for years thrown up human bones on the terrace of this mound in great abundance. The length of time that has evidently elapsed since burial, had corroded most of the bones, so that they crumbled under the hand and exposure to air; yet, with great care, a cranium was extracted from its bed, that preserved sufficient consistency to show its form, and prove the fact of its aboriginal origin. It was indisputably the compressed skull of a Flat Head Indian, or one whose head, in infancy, had undergone the compressing process. The forehead was wide and lofty, and the compression had taken effect chiefly on the back part of the head, bending the skull over with a short curve, which could be distinctly traced in the circular line which such a compression would naturally make.

The skeletons, seen in position, were those of common size, one or two exhibiting a length of bone that may have belonged to a person six feet in height.

Near the center of the parallelogram of the foundation mound, there is an appearance of what has been supposed to have been a covered way from the base of the mound (perhaps from the fosse) nearly to the centre. It is now grown up with trees, and has the appearance of a deep gulf worn by the water. Gentlemen who examined this chasm twenty years since, were firm in the belief that it had been a subterranean passage. The longer chasm from the north side of the mound, is approached by a similar one, although shorter, from the southern side.

The ancient mounds on the American Bottom, Illinois, are thus described by a tourist :

"For the first time I found myself upon the celebrated 'American Bottom,' a tract of country which, for fertility and depth of soil, is perhaps unsurpassed in the world. A fine road of baked loam extended along my route. Crossing Cahokia creek, which cuts its deep bed diagonally through the bottom from the bluffs some six miles distant, and threading a grove of the beautiful *pecan*, with its long trailing boughs and delicate leaves, my path was soon winding gracefully away among those venerable monuments of a race now passed from the earth. The eye is struck at first by the number of these eminences, as well as by their symmetry of form and regularity of outline; and the most familiar resemblance suggested is that of gigantic hay-ricks sprinkled over the uniform surface of the prairie on every side. As you advance, however, into the plain, leaving the range of mounds upon the left, something of arrangement is detected in their relative position; and a design too palpable is betrayed to mistake them for the handiwork of nature. Upward of one hundred of these mounds, it is stated, may be enumerated within seven miles of St. Louis, their altitude varying from ten to sixty feet, with a circumference at the base of about as many yards. One of these, nearly in the centre of the first collection, is remarked as considerably larger than those around, and from its summit is commanded an extensive view of the scene. The group embraces, perhaps, fifty tumuli, sweeping off from opposite the city to the northeast, in form of a crescent, parallel to the river, and at a distance from it of about one mile: they extend about the same distance, and a belt of forest alone obstructs their view from the city. When this is removed, and the prairie is under cultivation, the scene laid open must be beautiful. The outline of the mounds is ordinarily that of a gracefully-rounded cone of varying declivity, though often the form is oblong, approaching the rectangle or ellipse. In some instances they are perfectly square, with a level area upon the summit sufficient for a dwelling and the necessary purlieua. Most of them are clothed with dense thickets and the coarse grass of the bottom; while here and there stands out an aged oak, rooted in the mould, tossing its green head proudly to the breeze, its rough bark shaggy with moss, and the pensile parasite flaunting from its branches. Some few of the tumuli, however, are quite naked, and present a rounded, beautiful surface from the surrounding plain.

"Leaving the first collection of tumuli, the road wound away smooth and uniform through the level prairie, with here and there upon the left a slight elevation from its low surface, seeming a continuation of the group behind, or a link of union to those yet before. It was a sweet afternoon; the atmosphere was still and calm, and summer's golden haze was sleeping magnificently on the far-off bluffs. At intervals the soft breath of the 'sweet south' came dancing over the tall, glossy herbage, and the many-hued prairie-flowers flashed in the sunlight. There was the *heliotrope*, in all its gaudy but magnificent forms; there the deep cerulean of the fringed *gentiana*, delicate as an iris; there the mellow gorgeousness of the *solidago*, in some spots along the pathway, spread-

leg out itself, as it were, into a perfect 'field of the cloth of gold;' and the balmy fragrance of the aromatic wild thyme or burgamot, scattered in rich profusion over the plain, floated over all. Small coveys of the prairie-fowl, *tetrao pratensis*, a fine species of grouse, the ungainly form of the partridge, or that of the timid little hare, would appear for a moment in the dusty road, and, on my nearer approach, away they hurriedly scudded beneath the friendly covert of the bright-leaved sumach or the thickets of the rosebush. Extensive groves of the wild plum and the crab-apple, succeeded each other for miles along the path as I rode onward; now extending in continuous thickets, and then swelling up like green islets, affording a refreshing shade for the numerous herds. The rude farm-house, too, with its ruder outbuildings, half buried in the dark luxuriance of its maize-fields, from time to time was seen along the route.

"After a delightful drive of half an hour the second group of eminences, known as the 'Cantine Mounds,' appeared upon the prairie at a distance of three or four miles, the celebrated 'Monk Hill,' the largest monument of the kind yet discovered in North America, heaving up its giant, forest-clothed form in the midst. What are the reflections to which this stupendous earth-heap gives birth? What the associations which throng the excited fancy? What a field for conjecture! What a boundless range for the workings of imagination! What eye can view this venerable monument of the past, this mighty landmark in the lapse of ages, this gray chronicler of hoary centuries, and turn away uninterested?

"As it is first beheld, surrounded by the lesser heaps, it is mistaken by the traveler for an elevation of natural origin: as he draws nigh, and at length stands at the base, its stupendous magnitude, its lofty summit, towering above his head and throwing its broad shadow far across the meadow; its slopes plowed with yawning ravines by the torrents of centuries descending to the plain; its surface and declivities perforated by the habitations of burrowing animals, and carpeted with tangled thickets; the vast size of the aged oaks rearing themselves from its soil; and, finally, the farm-house, with its various structures, its garden, and orchard, and *well*, rising upon the broad area of the summit, and the carriage pathway winding up from the base, all confirm his impression that no hand but that of the Mightiest could have reared the enormous mass. At that moment, should he be assured that this vast earth-heap was of origin demonstrably artificial, he would smile; but credulity the most sanguine would fail to credit the assertion. But when, with jealous eye, slowly and cautiously, and with measured footsteps, he has circled its base; when he has surveyed its slopes and declivities from every position, and has remarked the peculiar uniformity of its structure and the mathematical exactitude of its outline; when he has ascended to its summit, and looked around upon the piles of a similar character by which it is surrounded; when he has taken into consideration its situation upon a river bottom of a nature decidedly diluvial, and, of consequence, utterly incompatible with the *natural* origin of such elevations; when he has examined the soil of which it is composed, and has discovered it to be

uniformly, throughout the entire mass, of the same mellow and friable species as that of the prairie at its base; and when he has listened with scrutiny to the facts which an examination of its depths has thrown to light of its nature and its contents, he is compelled, however reluctantly yet without a doubt, to declare that the gigantic pile is incontestibly the **WORKMANSHIP OF MAN'S HAND**. But, with such an admission, what is the crowd of reflections which throng and startle the mind? What a series of unanswerable inquiries succeed! When was this stupendous earth-heap reared up from the plain? By what race of beings was the vast undertaking accomplished? What was its purpose? What changes in its form and magnitude have taken place? What vicissitudes and revolutions have, in the lapse of centuries, rolled like successive waves over the plains at its base! As we reflect, we anxiously look around us for some tradition, some time-stained chronicle, some age-worn record, even the faintest and most unsatisfactory legend, upon which to repose our credulity, and relieve the inquiring solicitude of the mind. But our research is hopeless. The present race of aborigines can tell nothing of these tumuli. To them, as to us, they are veiled in mystery. Ages since, long ere the white-face came, while this fair land was yet the home of his fathers, the simple Indian stood before this venerable earth-heap, and gazed, and wondered, and turned away.

"But there is another reflection, which, as we gaze upon these venerable tombs, addresses itself directly to our feelings, and bows them in humbleness. It is, that soon *our* memory and that of *our own* generation will, like that of other times and other men, have passed away; that when these frail tenements shall have been laid aside to moulder, the remembrance will soon follow them to the land of forgetfulness. Ah, if there be an object in all the wide universe of human desires for which the heart of man yearns with an intensity of craving more agonizing and deathless than for any other, it is that the memory should live after the poor body is dust. It was this eternal principle of our nature which reared the lonely tombs of Egypt, amid the sands and barrenness of the desert. For ages untold have the massive and gloomy pyramids looked down upon the floods of the Nile, and generation after generation has passed away; yet their very existence still remains a mystery, and their origin points down our inquiry far beyond the grasp of human ken, into the boiling mists, 'the wide involving shades' of centuries past. And yet how fondly did they who, with the toil, and blood, and sweat, and misery of ages, upreared these stupendous piles, anticipate an immortality for their name which, like the effulgence of a golden eternity, should for ever linger around their summits! So it was with the ancient tomb-builders of this New World; so has it been with man in every stage of his existence, from the hour that the giant Babel first reared its dusky walls from the plains of Shinar down to the era of the present generation. And yet how hopeless, desperately, eternally hopeless, are such aspirations of the children of men! As nations or as individuals, **our** memory we can never embalm! A few, indeed, may retain their forlorn relic within the sanctuary of hearts which loved us while with them, and that with a tenderness stronger than death; but, with the great mass of

man kind, our absence can be noticed only for a day ; and then the ranks close up, and a gravestone tells the passing stranger that we lived and died : a few years — the finger of time has been busy with the inscription, and we are *as if we had never been*. If, then, it must be even so,

‘O, let us keep the soul embalmed and pure
In living virtue ; that, when both must sever,
Although corruption may our frame consume,
The immortal spirit in the skies may bloom.’

“The antiquity of ‘Monk Mound’ is a circumstance which fails not to arrest the attention of every visitor. That centuries have elapsed since this vast pile of earth was heaped up from the plain, no one can doubt : every circumstance, even the most minute and inconsiderable, confirm an idea which the venerable oaks upon its soil conclusively demonstrate. With this premise admitted, consider for a moment the destructive effects of the elements even for a limited period upon the works of our race. Little more than half a century has elapsed since the war of our revolution ; but where are the fortifications, and parapets, and military defenses then thrown up ? The earthy ramparts of Bunker’s Hill were nearly obliterated long ago by the leveling finger of time, and scarce a vestige now remains to assist in tracing out the line of defense. The same is true with these works all over the country ; and even those of the last war — those at Baltimore, for example — are vanishing as fast as the elements can melt them away. Reflect, then, that this vast earth-heap, of which I am writing, is composed of a soil far more yielding in its nature than they ; that its superficies are by no means compact ; and then conceive, if you can, its stupendous character before it had bided the rains, and snows, and storm-winds of centuries, and before the sweeping floods of the ‘Father of Waters’ had ever encircled its base.

“How large an army of laborers, without the use of iron utensils, as we have every reason to suppose was the case, would be required for scraping up from the prairie’s surface this huge pile ; and how many years would suffice for its completion ? No one can doubt that the broad surface of the American Bottom, in its whole length and breadth, together with all the neighboring region on either bank of the Mississippi, once swarmed with living men and animals, even as does now the depths of its soil with their remains. The collection of mounds, which I have been attempting to describe, would seem to indicate two extensive cities within the extent of five miles ; and other groups of the same character may be seen upon a lower section of the bottom, to say nothing of those within the more immediate vicinity of St. Louis. The design of these mounds, as has been before stated, was various, undoubtedly ; many were sepulchres, some fortifications, some watch-towers or videttes, and some of the larger class, among which we would place Monk Hill, were probably devoted to the ceremonies of religion.

“The number of the earth-heaps known as the Cantine Mounds is about fifty, small and great. They lie very irregularly along the southern and eastern bank of Cahokia creek, occupying an area of some miles in circuit. They are of every form and every size, from the mere mole-

hill, perceptible only by a deeper shade in the herbage, to the gigantic Monk Mound, of which I have already said so much. This vast heap stands about one hundred yards from the creek, and the slope which faces it is very precipitous, and clothed with aged timber. The area of the base is about six hundred yards in circumference, and the perpendicular altitude has been estimated at from ninety to upward of a hundred feet. The form is that of a rectangle, lying north and south; and upon the latter extremity, which commands a view down the bottom, is spread out a broad terrace, or rather a steppe to the main body, about twenty feet lower than the summit, extending the whole length of the side, and is one hundred and fifty feet in breadth. At the left extremity of this terrace winds up the sloping pathway from the prairie to the summit of the mound. Formerly this road sloped up an inclined plane, projecting from the middle of the terrace, ten feet in breadth and twenty in extent, and seemed graded for that purpose at the erection of the mound. This declivity yet remains, but now forms part of a corn-field.

"The view from the southern extremity of the mound, which is free from trees and underbrush, is extremely beautiful. Away to the south sweeps off the river-bottom, at this place about seven miles in width, its waving surface variegated by all the magnificent hues of the summer flora of the prairies. At intervals, from the deep herbage is flung back the flashing sheen of a silvery lake to the oblique sunlight; while dense groves of the crab-apple and other indigenous wild fruits are sprinkled about like islets in the verdant sea. To the left, at a distance of three or four miles, stretches away the long line of bluffs, now presenting a surface naked and rounded by groups of mounds, and now wooded to their summits, while a glimpse at times may be caught of the humble farm-houses at their base. On the right meanders the Cantine Creek, which gives the name to the group of mounds, betraying at intervals its bright surface through the belt of the forest by which it is margined. In this direction, far away in blue distance, rising through the mist and forest, may be caught a glimpse of the spires and cupolas of the city, glancing gayly in the rich summer sun. The base of the mound is circled upon every side by lesser elevations of every form and at various distances. Of these, some lie in the heart of the extensive maize-fields, which constitute the farm of the proprietor of the principal mound, presenting a beautiful exhibition of light and shade, shrouded as they are in the dark, twinkling leaves. The most remarkable are two standing directly opposite the southern extremity of the principal one, at a distance of some hundred yards, in close proximity to each other, and which never fail to arrest the eye. There are also several large square mounds covered with forest along the margin of the creek to the right, and groups are caught rising from the declivities of the distant bluffs.

"Upon the western side of Monk Mound, at a distance of several yards from the summit, is a well some eighty or ninety feet in depth, the water of which would be agreeable enough were not the presence of sulphur, in some of its modifications, so palpable. This well penetrates the heart of the mound, yet, from its depth, can not reach lower than the level of the surrounding plain. I learned, upon inquiry, that when this

well was excavated, several fragments of pottery, or decayed ears of corn, and other articles, were thrown up from a depth of sixty-five feet; proof incontestible of the artificial structure of the mound. The associations, when drinking the water of this well, united with its peculiar flavor, are not of the most exquisite character, when we reflect that the precious fluid has probably filtrated, part of it at least, through the contents of a sepulchre.

Monk Mound has derived its name and much of its notoriety from the circumstance, that in the early part of the present century, for a number of years, it was the residence of a society of ecclesiastics, of the order *La Trappe*, the most ascetic of all the monastic denominations.

MISSISSIPPI RIVER.

Schoolcraft's description of his discovery of the extreme source—the very fountains of the great Father of Waters, is graphic and interesting:

"A fog prevented our embarking until five o'clock in the morning, and it was then impossible to discern the objects at a distance. We found the channel above the Naiwa, diminished to a clever brook, more decidedly marshy in the character of its shores, but not presenting in its plants or trees any thing particularly to distinguish it from the contiguous lower parts of the stream. The water is still and pond-like. It presents some small areas of wild rice. It appears to be a favorite resort for the duck and teal, who frequently rose up before us, and were aroused again and again by our progress. An hour and a half diligently employed, brought us to the foot of Ossowa Lake. We halted a moment to survey it. It exhibits a broad border of aquatic plants, with somewhat blackish waters. Perch abound in it. It is the recipient of two brooks, and may be regarded as the source of this fork of the Mississippi. We were precisely twenty minutes in passing through it. We entered one of the brooks, the most southerly in position. It possessed no current, and was filled with broad-leaved plants, and a kind of pond-lily. We appeared to be involved in a morass, where it seemed equally impracticable to make the land, or proceed far by water. In this we were not mistaken; Oza Windib soon pushed his canoe into the weeds, and exclaimed, *Oma mikuanna* (here is the portage.) A man who is called upon for the first time to debark in such a place, will look about to discover some dry spot to put his feet upon. No such spot, however, existed here. We stepped into rather warm pond water, with a miry bottom. After a hundred yards, or more, the soil became firm, and we soon began to ascend a slight elevation, where the growth partakes more of the character of a forest. Traces of a path appeared here, and we suddenly entered an opening affording an eligible spot for landing. Here our baggage was prepared for the portage. The carbonaceous remains of former fires, the bones of birds, and scattered camp poles, proved it to be a spot which had previously been occupied by the Indi-

ans. The prevailing growth at this place is spruce, white cedar, tamarac, and gray pine. Here we breakfasted.

"Having followed out this branch of the Mississippi to its source, it may be observed that its existence, as a separate river, has hitherto been unknown in our geography. None of the maps indicate the ultimate separation of the Mississippi, above Cass Lake, into two forks. Little surprise should therefore be manifested, that the latitude of the head of this stream is found to be incorrect. It was not, however, to be expected that the inaccuracy would be so great as to place the actual source an entire degree south of the supposed point. Such, however, is the conclusion established by present observations.

"The portage from the east to the west branch of the river is estimated to be six miles. Beginning in a marsh, it soon rises into a little elevation of white cedar wood, matted with fallen trees, and obscured with moss. From this the path emerges upon dry ground. It soon ascends an elevation of oceanic sand, having bowlders and bearing pines. There is then another descent and another elevation. In short, the traveler now finds himself crossing a series of diluvial sand ridges, which form the height of land between the Mississippi Valley and Red River. This ridge is locally denominated *Hauteur des Terres*, where it is crossed in passing from Lac Plaie to Ottetail Lake, from which point it proceeds northward, separating the tributaries of the River des Corbeaus from those of Red River. It finally subtends both branches of the Mississippi, putting out a spur between the east and west fork, which intersects the portage, crosses the west of Itasca fork about the point of the Kakabykonce, or Little Rock Falls, and joining the main ridge, passes north-eastwardly of Lac Travers and Turtle Lake, and is again encountered in the noted portage path from Turtle Lake to Red Lake. It is, in fine, the table-land between the waters of Hudson's Bay and the Mexican Gulf. It also gives rise to the remotest tributaries of the River St. Louis, which, through Lake Superior and its connecting chain, may be considered as furnishing the head-waters of the St. Lawrence. This table-land is probably the highest in North-western America, in this longitude.

"Every step we made in treading these sandy elevations, increased the ardor with which we were carried forward. The desire of reaching the actual source of a stream so celebrated as the Mississippi—a stream which La Salle had reached the mouth of, a century and a half (lacking a year) before, was, perhaps, predominant; and we followed our guides down the sides of the last elevation, with the expectation of momentarily reaching the goal of our journey. What had been long sought, at last appeared suddenly. On turning out of a thicket into a small weedy opening, the cheering sight of a transparent body of water burst upon our view. *It was Itasca Lake—the source of the Mississippi.*"

Itasca Lake is in every respect a beautiful sheet of water, seven or eight miles in extent, lying among hills of diluvial formation, surrounded with pines which fringe the distant horizon and form an agreeable contrast with the greener foliage of its immediate shores. Its greatest length is from south-east to north-west, with a southern prolongation or

bay, which receives a brook. The waters are transparent and bright, and reflect the foliage produced by the elm, lynn, maple, and cherry, together with other species more abundant in northern latitudes. The lake itself is of irregular form, which will be best illustrated by the following sketch: It has a singular island, upon which we landed, after an hour's paddling from the spot of our arrival and embarkation. We found here the forest trees above named growing promiscuously with the betula and spruce. The bones of fish and tortoise, found at the locality of former Indian camp-fires, indicate the existence of these species in the lake. We observed a deer standing in the margin of the lake. And here, as well as throughout the lakes of the region, we found the duck, teal, and loon in possession of their favorite seclusions. Innumerable shells, (a species of helix,) were driven up to the head of the island. Other parts of the lake yield a small species of the unio, which were found strewing the bed of the outlet. And it may here be remarked, that this shell exists, in the largest and heaviest species heretofore known, in the lowest parts of this stream—the Mississippi having its origin here.

The outlet of Itasca Lake is, perhaps, ten or twelve feet broad, with an apparent depth of from twelve to eighteen inches. The discharge of water appears to be copious compared to its inlet. Springs may, however, produce accessions which are not visible, and this is probable, both from the geological character of the country, and the transparency and coolness of the water.

The height of this lake above the sea is an object of geographical interest, which, in the absence of actual survey, it may subserve the purposes of useful inquiry to estimate. From notes taken on the ascent, it cannot be short of 160 feet above Cass Lake. Adding the estimate of 1330 feet, submitted in 1820, as the elevation of that lake, the Mississippi may be considered to originate at an altitude of say 1500 feet above the Atlantic. Its length, assuming former data as the basis, and computing it through Itasca or west fork, may be placed at 3160 miles, 182 of which comprises an estimate of its length above Cass Lake. Its general course in ascending, above the latter point, is north of west as far as the Lac Travers, then south to its primary fork, which it continued, following up the east fork to Kubbakuana Lake, and for some distance further. It then varies a short distance, north and north-west, then south-west and south, and finally south-west, to its main source in Ossowa Lake.

Lake Pepin* is an enlargement of the Mississippi River, of about twenty-one miles in length and generally two and a half in breadth, and situated a few miles below the Falls of St. Anthony. It is encircled by majestic bluffs, with the agreeable exception of an occasional opening of

* Father Hennipin was the first European who ever saw this lake. He reached it in 1690, and called it the "Lake of Tears, because," says he, "the savages who took us, consulted in this place what they should do with their prisoners; and those who were for murdering us, cried all the night upon us, to oblige, by their tears, their companions to consent to our death. Its waters are almost standing, the stream being hardly perceptible in the middle."

fine meadow-land. The surface of the lake presents a smooth and sluggish expanse of water, unchecked by a single island, extending itself, generally unruffled, nearly as far as the eye can reach. In a high wind, however, it is reputed of very dangerous navigation, and on such occasions the voyagers warn you *le lac est petit, mais il est malin*. About half way up the lake, its eastern bank rises to a height of near four hundred and fifty feet, of which the first one hundred and fifty are formed by a perpendicular bluff, and the lower three hundred constitute a very abrupt and precipitous slope, which extends from the base of the bluff to the edge of the water. The wildness of the scenery, and its contrast with the shores of the river below, render it one of the most interesting spots on this vast flood of water. There is here also, what we seldom meet with on the lengthened Mississippi, a high projecting point, a precipitous crag resting upon a steep bank whose savage features singularly contrast with the peaceful lake, whose waters lave its base. But the associations connected with this spot, invest it with a superior interest, while, at the same time, they throw a gloom over the bright features of the scene. It is remembered as the theatre of one of the most melancholy incidents that often occur in the history of the Indians. We give the tale in the simple language of a guide, who accompanied Major Long in his northern expedition :

"There was, in the village of Keoxa, in the tribe of Wapasha, during the time that his father lived and ruled over them, a young Indian female, whose name was Winona, which signifies "the first born." She had conceived an attachment for a young hunter, who reciprocated it; they had frequently met, and agreed to a union in which all their hopes centred; but on applying to her family, the hunter was surprised to find himself denied, all his claims superseded by those of a warrior of distinction, who had sued for her. The warrior was a general favorite with the nation; he had acquired a name by the services which he had rendered to his village when attacked by the Chippewas; yet, notwithstanding all the ardor with which he pressed his suit, and the countenance which he received from her parents and brothers, Winona persisted in preferring the hunter. To the usual commendations of her friends in favor of the warrior, she replied, that she had made choice of a man, who being a professed hunter, would spend his life with her, and secure to her comfort and subsistence, while the warrior would be constantly absent, intent upon martial exploits. Winona's expostulations were, however, of no avail, and her parents having succeeded in driving away her lover, began to use harsh measures in order to compel her to unite with the man of their choice. To all her entreaties, that she should not be forced into a union so repugnant to her feelings, but rather be allowed to live a single life, they turned a deaf ear. Winona had at all times enjoyed a greater share in the affections of her family, and she had been indulged more, than is usual with females among Indians. Being a favorite with her brothers, they expressed a wish that her consent to this union should be obtained by persuasive means, rather than that she should be compelled to it against her inclination. With a view to remove some of her objections, they took means to provide for her future

maintenance, and presented to the warrior all that in their simple mode of living an Indian might covet. About that time a party was formed to ascend from the village to Lake Pepin, in order to lay in a store of the blue clay which is found upon its banks, and which is used by the Indians as a pigment. Winona and her friends were of the company. It was on the very day that they visited the lake that her brothers offered their presents to the warrior. Encouraged by these, he again addressed her, but with the same ill success. Vexed at what they deemed an unjustifiable obstinacy on her part, her parents remonstrated in strong language, and even used threats to compel her into obedience. 'Well,' said Winona, 'you will drive me to despair; I said I loved him not, I could not live with him; I wished to remain a maiden; but you would not. You say you love me; that you are my father, my brothers, my relations, yet you have driven from me the only man with whom I wished to be united; you have compelled him to withdraw from the village; alone, he now ranges through the forest, with no one to assist him, none to spread his blanket, none to build his lodge, none to wait on him; yet was he the man of my choice. Is this your love? But even it appears that this is not enough; you would have me do more; you would have me rejoice in his absence; you wish me to unite with another man, with one whom I do not love, with whom I never can be happy. Since this is your love, let it be so; but soon you will have neither daughter, nor sister, nor relation, to torment with your false professions of affection. As she uttered these words, she withdrew, and her parents, heedless of her complaints, decreed that that very day Winona should be united to the warrior. While all were engaged in busy preparations for the festival, she wound her way to the top of the hill; when she reached the summit, she called out with a loud voice to her friends below; she upbraided them for their cruelty to herself and her lover. 'You,' said she, 'were not satisfied with opposing my union with the man whom I had chosen, you endeavored by deceitful words to make me faithless to him, but when you found me resolved upon remaining single, you dared to threaten me; you knew me not if you thought that I could be terrified into obedience; you shall soon see how well I can defeat your designs.' She then commenced to sing her dirge; the light wind which blew at the time, wafted the words towards the spot where her friends were; they immediately rushed, some towards the summit of the hill to stop her, others to the foot of the precipice to receive her in their arms, while all, with tears in their eyes, entreated her to desist from her fatal purpose; her father promised that no compulsive measures should be resorted to. But she was resolved, and as she concluded the words of her song, she threw herself from the precipice, and fell, a lifeless corpse, near her distressed friends. Thus has this spot acquired a melancholy celebrity; it is still called the Maiden's Rock, and no Indian passes near it, without involuntarily casting his eye towards the giddy height, to contemplate the place whence this unfortunate girl fell a victim to the cruelty of her relentless parents."

This tragedy was enacted many years ago. But we are told, that "there were in the circumstances of this case, several conditions which

tended to impart to it a peculiar interest; the maid was one who had been a favorite in her tribe; the warrior whom her parents had selected was one of note; her untimely end was a public one; many were the witnesses to it; it was impressive in the highest degree; the romantic situation of the spot, which may be thought to have had some influence over the mind of a young and enthusiastic female, must have had a corresponding effect upon those who witnessed it." It did produce an indelible impression upon its witnesses; and the Indian now who has even received the tale from others, relates it with deep and unaffected feeling. It is one of those cases which show how completely the savage is swayed by passion, and presents, at the same time, a test of its sincerity and constancy.

The town of St. Peters is the most northerly on the banks of the "Great Father of Waters," and is, perhaps, as handsomely situated as any other. It stands upon the military reservation attached to Fort Snelling, on the west side of the river, and just above the mouth of the stream from which it takes its name. The Fort is large and built of stone, of which material the surrounding houses are constructed. The combined appearance of these objects, added to the fields and gardens around, with the smooth prairie in the rear, and noble steamboats lying upon the river in front, altogether produce an effect of the most pleasing kind, and half induce the admiring visitor to doubt the evidence of his senses and question the possibility of the scene he beholds, being situated at a remote post, two thousand miles in the interior, resembling, as it does so much, the characteristics of an old settled region "down east." But so it is, and such the vast scale upon which our beloved country has been projected by the Creator of the universe! As fine crops of corn, oats, barley, etc., and vegetables of all kinds, are produced here as in any part of Pennsylvania or New England.

The Falls of St. Anthony are about seven miles above St. Peters, and in themselves afford ample compensation for the time required in accomplishing a visit to them. It is only surprising that a laudable desire of increasing their information respecting the various portions of this mighty Republic, has not already induced a greater number of our citizens to worship Nature at this her shrine, than which, perhaps, there is no other portion of our continent more emphatically deserving of the appellation. Certainly she can nowhere be more appropriately worshipped, or surrounded with more striking attributes of native wildness and primeval beauty. How many thousands upon thousands annually flock to participate in the monotonous and frivolous amusements of our fashionable watering places, whose knowledge of the country is so far from perfect that the *name* even of the Falls of St. Anthony is comparatively unknown to them; and yet the facilities afforded for visiting them, by means of splendid steamboats, are not surpassed by those of any fashionable resort in the older portions of the Union. Those who visit these Falls at present generally stay no longer than the boat in which they are conveyed, although accommodations may be procured at St. Peters, by those who feel disposed to cultivate the opportunity for enjoying the

examination of the surrounding interesting scenery. A traveler visiting the place says:

"It will afford a delightful resort in the summer from the cares of the world for the man of business, and the invalid will be invigorated by healthful breezes and a delicious climate. Many who have heard of the Falls of St. Anthony are not aware of the splendid scenery with which the country abounds. Smooth glittering sheets of water, verdant meadows, and high bleak bluffs, give elegance and grandeur to the landscape. The wide extended prairies, well stocked with grouse and blooming with many kinds of flowers—the lake abounding with fish, and their shores covered with beautiful specimens of carnelian and incrustations of shells, offer great attractions to the sportsman and the man of taste. The savage can be here seen in his wild state, and an Indian dance will be no rare occurrence. In truth I do not believe a few weeks or months could be spent more pleasantly anywhere, if proper accommodations could be had, than at the Falls of St. Anthony."

The great volume of water continually pouring over the barrier to its progress, and sending up, as it were, to God, the anthem of this his handiwork, contrasted, as the voice of the cataract naturally is, with the quiet of the surrounding scenery, and the beautiful repose of the far stretching prairie—all combine to subdue the feelings, and render them subjective to the sway of devotional thought. An intelligent writer for the *Pittsburg Visitor*, who narrates in the style of a cultivated poet, while he sees with the eye of a painter, published several years since in the journal alluded to, a sketch of a visit paid by him to St. Anthony's. It must be regretted that he does not more particularly describe the great wonder itself as well as the country adjoining. His description, so far as it goes, is very accurate, and we give it in his own words:

"Standing on the western bank of the Mississippi, you behold the stream dividing and encircling an island immediately above—then reuniting, and for two hundred yards by its agitation it appears to regret the formidable feat it is destined to accomplish.

"The river, which here is about seven hundred yards wide, tumbles its vast sheet of water over a ledge extending across the stream; in the centre a projecting point of the rock, somewhat resembling a horse-shoe, divides the fall. On the western side the waters dash themselves upon huge masses of detached rocks, which are distributed in the bed in a state of chaotic confusion, and while they diminish the grandeur of the scene, cast from their broad and jagged surface volumes of foam and spray, glistening with bright refulgence in the rays of the glorious sun.

"The eastern portion of the fall, quickly and calmly slides over its rocky bed, falling perpendicularly a distance of fourteen feet into the pool below, and after the ruffled and uneven temper of the water subsides again, mingles itself in the flowing stream. Altogether, the falls do not realize expectation. The shores on both sides are covered with luxuriant vegetation, and the rocky and romantic bluffs below serve to attract our wonder and admiration.

"The adjoining shores indicate that the falls have been much lower down the stream than at present, presenting every appearance of having

continued their ponderous masses of rock entirely across to the opposite bank."

The same writer made a visit to Brown's Falls, which he thinks beautiful and well worthy the inspection of the lovers of nature. He says: "At the suggestion of the driver, we quitted the carriage to behold this seemingly insignificant stream precipitate its waters over a bed of rock, a distance of something more than forty feet, upon the rough and jagged masses of stone forming a time-worn basin for the noisy cascade. Leaving its banks, we explored the neighborhood, and found that our Jehu certainly evinced taste in recommending the spot, for in all my wanderings I have seen nothing more delightfully attractive than the scenery and associations embraced within the scope of a single glance. High above our heads the noisy volume of water leaped on to the verge of the cataract, and then, pausing but a brief while, sent its sparkling shower tremblingly, yet evenly over the barrier, whence it came madly down upon the fractured rocks at our feet. The spray caused by the strong and powerful concussion imparted a cooling influence to the shaded dell, while to the eye it appeared an iris lighting up the almost gloomy shade.

"It was a spot for dreams of Arcadia, and it required no stretch of imagination to believe that here some Dian of the surrounding wilds may have oft retired to escape the arid breath of the sun-scorched prairies, or perchance the buskined son of the soil led the maiden of his tribe to pour into her ear the story of his love. Fit spot for love or solitude! one might well forget that beyond there was a world of barrier — of six per cents, and notes of hand."

It certainly appears strange that the Mississippi, after absorbing the Ohio, presents no visible augmentation of its volume. Below the point of junction, the river is not broader than the Ohio alone. Though flowing in the same channel, the streams are not mingled. For many miles there is a distinct line of demarkation between the waters of the two rivers. Those of the Ohio are clear, while the stream of the Mississippi is ever dark and turbid. When the Mississippi is in flood, it almost up dams the Ohio, and suffers it to occupy but a small portion of the common channel.

After quitting *La Belle Riviere*, as the French first designated the Ohio, one feels as if he has made an exchange for the worse. The scenery of the Mississippi is even less varied than that of the Ohio. It is almost uniformly flat, though in the course of twelve hundred miles, a few bluffs and eminences do certainly occur. The wood grows down to the very margin of the river; and the timber, for some hundred miles, is by no means remarkable for size. As the river descends to the southward, however, it is of finer growth; and about latitude 30°, vegetation becomes marked by a degree of rankness and luxuriance which I have never seen anywhere else.

The American forests are generally remarkable for the entire absence of underwood, so that they are easily penetrable by a foot-traveler, and generally, even by a mounted one. But, in the neighborhood of the Mississippi, there is, almost uniformly, a thick undergrowth of cane, varying

in height from four or five to about twenty feet, according to the richness of the soil. Through this thicket of cane, we should think it quite impossible to penetrate; yet, the Indians do so for leagues together, though by what means they contrive to guide their course, where vision is manifestly impossible, is not easy to understand.

It has been the fashion with travelers to talk of the scenery of the Mississippi as wanting grandeur and beauty. Most certainly, it has neither. But there is no scenery on earth more striking. The dreary and pestilential solitude, untrodden, save by the foot of the Indian; the absence of all living objects, save the huge alligators, which float past apparently asleep, on the drift-wood; and an occasional vulture, attracted by its impure prey on the surface of the waters; the trees with a long and hideous drapery of pendant moss, fluttering in the wind; and the giant river, rolling onward the vast volume of its dark and turbid waters through the wilderness, form the features of one of the most dismal and impressive landscapes on which the eye of man ever rested. Rocks and mountains would add nothing of sublimity to the Mississippi. Pelion might be piled on Ossa; Alps on Andes; and still to the heart and perceptions of the spectator, the Mississippi would be *alone*. It can brook no rival, and it finds none. No river in the world drains so large a portion of the earth's surface. It is the traveler of five thousand miles, more than two-thirds of the diameter of the globe. The imagination asks, whence come its waters, and whither tend they? They come from the distant regions of a vast continent, where the foot of civilized man has seldom yet been planted. They flow into an ocean yet vaster, the whole body of which acknowledges their influence. Through what varieties of climate have they passed? On what scenes of lonely and sublime magnificence have they gazed? In short, when the traveler has asked and answered these questions, and a thousand others, it will be time enough to consider how far the scenery of the Mississippi would be improved by the presence of rock and mountains. He may then be led to doubt whether any *great* effect can be produced by a combination of objects of a discordant character, however grand in themselves. The imagination is, perhaps, susceptible but of a single powerful impression at a time. Sublimity is uniformly connected with unity of object. Beauty may be produced by the happy adaptation of a multitude of harmonious details; but the highest sublimity of effect can proceed but from one glorious and paramount object, which impresses its own character on every thing around.

"The prevailing character of the Mississippi," says a traveler, "is that of solemn gloom. I have trodden the passes of Alp and Appennine, yet never felt how awful a thing is nature, till I was borne on its waters, through regions desolate and uninhabitable. Day after day and night after night, we continued driving right downward to the south; our vessel, like some huge demon of the wilderness, bearing fire in her bosom, and canopied the eternal forest with the smoke of her nostrils. How looked the hoary river-god, I know not; nor what thought the alligators when awakened from their slumber by a vision so astounding. But the effect on my own spirits was such as I have never experienced before or

since. Conversation became odious, and I passed my time in a sort of dreamy contemplation. At night, I ascended to the highest deck, and lay for hours gazing listlessly on the sky, the forests and the waters, amid silence only broken by the clanging of the engine.

"The navigation of the Mississippi is not unaccompanied by danger, rising from what are called *planters* and *sawyers*. These are trees firmly fixed in the bottom of the river, by which vessels are in danger of being impaled. The distinction is, that the former stand upright in the water, the latter lie with their points directed down the stream.

"The bends or flexures of the Mississippi are regular in a degree unknown in any other river. The action of running water, in a vast alluvial plain like that of the basin of the Mississippi, without obstruction from rock or mountain, may be calculated with the utmost precision. Whenever the course of a river diverges in any degree from a right line, it is evident that the current can no longer act with equal force on both its banks. On one side the impulse is diminished, on the other increased. The tendency in these sinuosities, therefore, is manifestly to increase, and the stream which hollows out a portion of one bank, being rejected to the other, the process of curvature is still continued, till its channel presents an almost unvarying succession of salient and retiring angles.

"In the Mississippi, the flexures are so extremely great that it often happens that the isthmus which divides different portions of the river gives way. A few months before my visit to the south, a remarkable case of this kind had happened, by which forty miles of navigation had been saved. The opening thus formed, was called the *new cut*. Even the annual changes which take place in the bed of the Mississippi are very remarkable. Islands spring up and disappear; shoals suddenly present themselves, where pilots have been accustomed to deep water; in many places, whole acres are swept away from one bank, and added to the other; and the pilot assured me that in every voyage, he could perceive fresh changes.

"Many circumstances contribute to render these changes more rapid in the Mississippi, than in any other river. Among these, perhaps, the greatest is the vast volume of its waters, acting on alluvial matter peculiarly penetrable. The river, when in flood, spreads over the neighboring country, in which it has formed channels, called *bayous*. The banks thus become so saturated with water, that they can oppose little resistance to the action of the current, which frequently sweeps off large portions of the forest.

"The immense quantity of drift-wood is another cause of change. Floating logs encounter some obstacle in the river, and become stationary. The mass gradually accumulates; the water, saturated with mud, deposits a sediment, and thus an island is formed, which soon becomes covered with vegetation. Some years ago, the Mississippi was surveyed by order of the government; and its islands from the confluence of the Missouri to the sea, were numbered. I remember asking the pilot the name of a very beautiful island, and the answer was, five-hundred-and-seventy-three, the number assigned to it in the hydrographical survey and the only name by which it was known.

"One of the most striking circumstances connected with this river-voyage, was the rapid change of climate. Barely ten days had elapsed since I was traversing mountains almost impassable from snow. Even the level country was partially covered with it, and the approach of spring had not been heralded by any symptoms of vegetation. Yet, in little more than a week, I found myself in the region of the sugar-canes.

"The process of this transition was remarkable. During the first two days of the voyage, nothing like a blossom or a green leaf was to be seen. On the third, slight signs of vegetation were visible on a few of the hardier trees. These gradually became more general as we approached the Mississippi; but then, though our course lay almost due south, little change was apparent for a day or two. But after passing Memphis, in latitude 35°, all nature became alive. The trees which grew on any little eminence, or which did not spring immediately from the swamp, were covered with foliage; and at our wooding times, when I rambled through the woods, there were a thousand shrubs already bursting into flower. On reaching the lower regions of the Mississippi, all was brightness and verdure. Summer had already begun, and the heat was even disagreeably intense.

"Shortly after entering Louisiana, the whole wildness of the Mississippi disappears. The banks are all cultivated, and nothing was to be seen but plantations of sugar, cotton, and rice, with the houses of their owners, and the little adjoining hamlets inhabited by the slaves. Here and there were orchards of orange-trees, but these occurred too seldom to have much influence on the landscape."

We extract from Audobon a description of the Virginia squatter upon the banks of the lower Mississippi:

"The individuals who become squatters, choose that sort of life of their own free will. They mostly remove from other parts of the United States, after finding that land has become too high in price; and they are persons who, having a family of strong and hardy children, are anxious to enable them to provide for themselves. They have heard from good authorities that the country extending along the great streams of the West, is, of all parts of the Union, the richest, in its soil, the growth of its timber, and the abundance of its game; that, besides, the Mississippi is the great road to and from all the markets in the world; and that every vessel borne by its waters afford to settlers some chance of selling their commodities, or of exchanging them for others. To these recommendations is added another, of even greater weight with persons of the above denomination, namely, the prospect of being able to settle on land, and perhaps to hold it for a number of years, without purchase, rent, or tax of any kind. How many thousands of individuals in all parts of the globe would gladly try their fortune with such prospects, I leave to you, reader, to determine.

"As I am not disposed too highly to color the picture which I am about to submit to your inspection, instead of pitching on individuals who have removed from our eastern boundaries, and of whom certainly there are a good number, I shall introduce to you the members of a family from Virginia, first giving you an idea of their condition in that coun-

try, previous to their migration to the West. The land which they and their ancestors have possessed for a hundred years, having been constantly forced to produce crops of one kind or other, is now completely worn out. It exhibits only a superficial layer of red clay, cut up by deep ravines, through which much of the soil has been conveyed to some more fortunate neighbor, residing in a yet rich and beautiful valley. The strenuous efforts to render it productive have failed. They dispose of everything too cumbersome or expensive for them to remove, retaining only a few horses, a servant or two, and such implements of husbandry and other articles as may be necessary on their journey, or useful when they arrive at the spot of their choice.

"I think I see them at this moment harnessing their horses, and attaching them to their wagons, which are already filled with bedding, provisions, and the younger children; while on their outsides are fastened spinning-wheels and looms; and a bucket, filled with tar and tallow, swings between the hind wheels. Several axes are secured to the bolster, and the feeding trough of the horses contains pots, kettles and pans. The servant, now become a driver, rides the near saddled horse, the wife is mounted upon another, the worthy husband shoulders his gun, and his sons, clad in plain substantial homespun, drive the cattle ahead, and lead the procession, followed by the hounds and other dogs. Their day's journey is short and not agreeable:—the cattle, stubborn or wild, frequently leave the road for the woods, giving the travelers much trouble; the harness of the horses here and there gives away, and needs immediate repair; a basket, which has accidentally dropped, must be gone after, for nothing that they have can be spared; the roads are bad, and now and then all hands are called to push on the wagon, or prevent it from upsetting. Yet, by sunset, they have proceeded perhaps twenty miles. Rather fatigued, all assemble round the fire which has been lighted, supper is prepared, and a camp being erected, there they pass the night.

"Days and weeks, nay, months, of unremitting toil pass, before they gain the end of their journey. They have crossed both the Carolinas, Georgia and Alabama. They have been traveling from the beginning of May to that of September, and with heavy hearts they traverse the state of Mississippi. But now, arrived on the banks of the broad stream, they gaze in amazement on the dark deep woods around them. Boats of various kinds they see gliding downward with the current, while others slowly ascend against it. A few inquiries are made at the nearest dwelling, and assisted by the inhabitants with their boats and canoes, they at once cross the Mississippi, and select their place of habitation.

"The exhalations arising from the swamps and morasses around them, have a powerful effect on these new settlers, but all are intent upon preparing for the winter. A small patch of ground is cleared by the axe and the fire, a temporary cabin is erected, to each of the cattle is attached a jingling-bell before it is let loose into the neighboring canebrake, and the horses remain about the house, where they find sufficient food at that season. The first trading-boat that stops at their landing, enables them to provide themselves with some flour, fish-hooks, and ammunition, as well as other commodities. The looms are mounted, the spinning-wheels soon

furnish some yarn, and in a few weeks the family throw off their ragged clothes, and array themselves in suits adapted to the climate. The father and sons, meanwhile, have sown turnips and other vegetables; and from some Kentucky flat-boat, a supply of live poultry has been procured.

"October tinges the leaves of the forest, the morning dews are heavy the days hot, the nights chill, and the unacclimated family in a few days are attacked with ague. The lingering disease almost prostrates their whole faculties, and one seeing them at such a period might well call them sallow and sickly. Fortunately the unhealthy season soon passes over, and the hoar-frosts make their appearance. Gradually, each individual recovers strength. The largest ash-trees are felled; their trunks are cut, split, and corded in front of the building; a large fire is lighted under night on the edge of the water, and soon a steamer calls to purchase the wood, and thus add to their comforts during winter.

"This first-fruit of their industry imparts new courage to them; their exertions multiply, and when spring returns the place has a cheerful look. Venison, bears' flesh, wild turkeys, ducks, and geese, with now and then some fish, have served to keep up their strength, and now their enlarged field is planted with corn, potatoes and pumpions. Their stock of cattle, too, has augmented; the steamer, which now stops there as if by preference, buys a calf, or a pig, together with the whole of their wood. Their store of provisions is renewed, and brighter rays of hope enliven their spirits.

"Who is he of the settlers on the Mississippi that cannot realize some profit? Truly none who is industrious. When the autumnal months return, all are better prepared to encounter the ague which then prevails. Substantial food, suitable clothing, and abundant fringe, repel its attacks; and before another twelvemonth has elapsed, the family is naturalized.

"The sons by this time have discovered a swamp covered with excellent timber, and as they have seen many rafts of saw-logs, bound for the mills of New Orleans, floating past their dwellings, they resolve to try the success of a little enterprise. Their industry and prudence have already enhanced their credit. A few cross-saws are purchased, and some broad-wheeled 'carry-logs' are made by themselves. Log after log is hauled to the bank of the river, and in a short time their first raft is made on the shore and loaded with cord-wood. When the next freshet sets it afloat, it is secured by long grape-vines or cables, until the proper time being arrived, the husband and sons embark on it, and float down the mighty stream.

"After encountering many difficulties, they arrive in safety at New Orleans, where they dispose of their stock, the money obtained for which may be said to be all profit; supply themselves with such articles as may add to their convenience or comfort, and with light hearts, procure a passage on the upper deck of a steamer, at a very cheap rate, on account of the benefit of their labor in taking in wood or otherwise.

"And now the vessel approaches their home. See the joyous mother and daughters as they stand on the bank! A store of vegetables lies around them, a large tub of fresh milk is at their feet, and in their hands

ere plates filled with rolls of butter. As the steamer stops, three broad straw hats are waved from its upper-deck; and soon, husband and wife, brothers and sisters, are in each other's embrace. The boat carries off the provisions, for which value has been left, and as the captain issues his orders for putting on the steam, the happy family enter their humble dwelling. The husband gives his bag of dollars to the wife, while the sons present some token of affection to their sisters. Surely, at such a moment, the squatters are richly repaid for all their labors.

"Every successive year has increased their savings. They now possess a large stock of horses, cows, and hogs, with abundance of provisions, and domestic comforts of every kind. The daughters have been married to the sons of neighboring squatters, and have gained sisters to themselves by the marriage of their brothers. The government secures to the family the lands, on which, twenty years before, they settled in poverty and sickness. Larger buildings are erected on piles, secure from the inundations; where a single cabin once stood, a neat little village is now to be seen; warehouses, stores and workshops increase the importance of the place. The squatters live respected, and in due time die regretted, by all who knew them.

"Thus are the vast frontiers of our country peopled, and thus does cultivation, year after year, extend over the western wilds. Time will, no doubt, be when the great valley of the Mississippi, still covered with primeval forests, interspersed with swamps, will smile with cornfields and orchards, while crowded cities will rise at intervals along its banks, and enlightened nations will rejoice in the bounties of Providence."

The interest excited by the Mississippi river consists not in attractive scenery visible to the eye at any given point, but in the thoughts it suggests: for the most stolid mind is impressed, if it but even dimly comprehends the extent of this great aorta of a mighty continent, affording internal navigation for thirteen States and Territories—a more extensive line of coast to our empire than the Atlantic itself, and far surpassing that ocean in the number of its ports and the value of its commerce. It has been estimated that the commerce of the Mississippi outlet, both ways, is equal to three hundred millions; and the commerce of the lakes, west of Buffalo, is two hundred millions. The value of the commerce carried on in Western steamboats can not be less than five hundred millions! This includes more than one thousand steamers, traversing a distance of fully thirty thousand miles upon the waters of our great rivers and inland lakes.

In natural objects the Mississippi differs from other rivers, more particularly in the extent of its spring floods, its friable banks, primitive forests, its floating trees, its "snags," and its "sawyers." At low water, the voyager perceives the stream comparatively narrow and confined within high banks. If inexperienced, he can scarcely realize that possibly in a few weeks or days, the entire appearance of the country will be changed, that the bed of the river will be full and overflowing, and that houses and plantations, instead of being upon a high bluff, are literally below the usual level of the river, and but for the artificial protection of levees, would be entirely submerged. Untold acres of rich land, forking the

banks, annually cave into the stream, unloosing thousands of forest trees, which are, by this means, drifted from the cold regions of the north, to decay prematurely beneath a tropical sun.

The majority of these forest giants, however, accumulate on sand-bars, and in the "short bends," fasten by their roots and limbs to shallow places, and are soon wholly, or in part, covered by the constant deposit—creating in a single year new-born islands, and turning swamp into high land. Others, again, will firmly fasten themselves in the deep channel, with their trunks pointing up-stream, and then shedding their more delicate limbs, they present the long, formidable shafts, known as "snags" in Mississippi navigation. Other trees, again, will fasten themselves in the current with their trunks down stream. The ever-rolling tide will force them under, until the tension of the bending roots overcomes the pressure, and they will slowly appear in sight, shake their drifting limbs, and then disappear for awhile in the depths below—such is the dreaded "sawyer." These last-described obstructions were the terror of the early boatmen of the Mississippi—the Scylla and Charybdis of its early navigation.

Among other physical peculiarities is presented the singular phenomenon of a mighty river, as you approach its termination, gradually narrowing within its banks. Soon after you pass New Orleans, the soil begins to grow less firm, and the depth of the river continues to diminish all the way to the sea; in the progress of a hundred miles it becomes lost in the low marshes, and all vegetation, except long rank grass, disappears. Here the current, without any visible reason, divides into three "passes"—almost undistinguishable channels, which cut through the accumulated deposit, the half-formed soil, and reach out into the Gulf. The depth of water in these outlets, unfortunately for the purposes of commerce, is never great, and constantly varies under the influence of wind and storm.

A vessel, many years ago, was built at Pittsburg, and from that town cleared for Leghorn. When she arrived at her place of destination, the captain produced his papers before the custom-house officer, who would not credit them, observing that he was well acquainted with the name of every shipping port—that no such place as Pittsburg existed, and that the vessel must be confiscated. The American, not at all abashed, laid before the unbelieving receiver of customs a map of the United States, and directing the attention of the functionary to the Gulf of Mexico, pointed out the Belize, and then carried his finger a thousand miles up the Mississippi to the mouth of the Ohio—then proceeding up the last-named river another *thousand miles*, he reached the port whence his vessel cleared. The astonished Italian, in his amazement, devoutly crossed himself, and could have been but little less surprised had the skipper kept on with his "inland navigation" until he reached the north pole itself. He did not know that his fellow-countryman, Columbus, ~~had~~ discovered so much."

The surplus of the rich lands of the West found an active demand, not only at the head-waters of the Ohio, but also among the rich settlements of Florida and Louisiana. A race of gigantic men was required to

guide in safety, against a swift-running current, the rude craft laden with rich stores through a perilous voyage of fifteen hundred miles, avoiding whirlpools, "snags," and "sawyers," and exposed to hostile conflict with the savage foe. The demand was supplied, and thus originated the keel-boatmen of the Mississippi—men more remarkable than any other that ever lived, and whose exaggerations, physical and mental, have given rise to the most genuine originality we can claim as American character.

The keel-boat was long and narrow, sharp at the bow and stern, and of light draft. From fifteen to twenty "hands" were required to propel it along. The crew, divided equally on each side, took their places upon the "walking-boards," extending along the whole length of the craft, and, setting one end of their pole in the bottom of the river, the other was brought to the shoulder, and with body bent forward, they *walked* the boat against the formidable current.

It is not strange that the keel-boatmen, always exercising in the open air, without an idea of the dependence of the laborer in their minds, armed constantly with the deadly rifle, and feeling assured that their strong arms and sure aim would any where gain them a livelihood, should have become, physically, the most powerful of men, and that their minds, often naturally of the highest order, should have elaborated ideas singularly characteristic of the extraordinary scenes and associations with which they were surrounded. Their professional pride was in ascending "rapids." This effort of human strength to overcome natural obstacles was considered *by them* worthy of their steel. The slightest error exposed the craft to be thrown across the current, or to be brought sideways in contact with rocks or other obstructions, which would inevitably destroy it. The hero vaunted "that his boat never swung in the swift current, and never backed from a "shute!"

Their chief amusements were "rough frolics," dancing, fiddling, and fist-fights. The incredible strength of their pectoral muscles, growing out of their peculiar labor and manner of life, made fights with them a direful necessity—it was an appetite, and, like pressing hunger, had to be appeased. The keel-boatman who boasted that he had never been whipped, stood upon a dangerous eminence, for every aspirant for fame was bound to dispute his claim to such distinction. Occasionally, at some temporary landing-place, a number accidentally came together for a night. From the extreme labors of the day, possibly quietness reigned in "the camp," when, unexpectedly, the repose would be disturbed by some restless fellow crowing forth a defiance in the manner of a game-cock; then, springing into some conspicuous place, and rolling up his sleeves, he would utter his challenge.

Rifle-shooting they brought to perfection—their deadly aim told terribly at the battle of New Orleans. As hunters, the weapon had been their companion, and they never parted with it in their new vocation. While working at the oar or pole, it was always within reach, and if a deer unexpectedly appeared on the banks, or a migratory bear breasted the waves, it was stricken down with unerring aim.

By an imperative law among themselves, they were *idlers on shore*, where their chief amusement was shooting at a mark, or playing severe

practical jokes upon each other. They would, with the rifle-ball, and at long distances, cut the pipe out of the hat-band of a fellow-boatman, or unexpectedly upset a cup of whisky that might, at "lunch-time," be for the moment resting on some one's knee. A negro, exciting the ire of one of these men, he at the distance of a hundred yards, with a rifle-ball, cut off the offender's heel, and did this without a thought that the object of his indignation could be more seriously damaged by an unsteady aim.

If they quarreled among themselves, and then made friends, their test that they bore no malice, was to shoot some small object from each other's heads. Mike Fink, the best shot of all keel-boatmen, lost his life in one of these strange trials of friendship. He had a difficulty with one of his companions, made friends, and agreed to the usual ceremony to show that he bore no ill-will. The man put an apple upon his head, placed himself at the proper distance—Mike fired, and hit, not the inanimate object, but the man, who fell to the ground, apparently dead. Standing by was a brother of this victim either of treachery or hazard, and in an instant of anger he shot Mike through the heart. In a few moments the supposed dead man, without a wound, recovered his feet. Mike had, evidently from mere wantonness, displaced the apple by shooting between it and the skull, in the same way that he would have barked a squirrel from the limb of a tree. The joke, unfortunately, cost the renowned Mike Fink his life.

The glorious point upon the Mississippi for the gathering of the boatmen was "Natchez-under-the-hill." It was at this landing that the best market was found for the products of the "upper country," and oftentimes there accumulated a mass of richly-laden boats, extending for miles along the shore. The peaceable inhabitants residing on "the bluff" oftentimes looked down with terror upon the wild bands of powerful men, who, having reached the terminus of their journey, were "paid off," and left without restraint to indulge their caprices in every form of "rowdiness." Generally, they expended their animal prowess among themselves, but they would occasionally break through the acknowledged boundaries of their own district, and carry the devoted city, so beautifully situated, by storm. Taking possession of the streets, with equal impunity they rode over the law and every physical obstruction; rare, indeed, was it that the police could make any headway against these mighty men. Having gratified their humors, drank up, or otherwise destroyed, all the whisky in their reach, with yells and war-whoops, that fairly wakened the aborigines sleeping beneath the walls of Fort Rosalie, they would retreat down the winding road that leads to the plateau "under the hill," most likely to meet with a number of their own set and engage in a pitched battle, the Herculean force of which finds no parallel, except in Homer's descriptions of the fabulous collisions between the gods.

False, indeed, would be the supposition that these men, lawless as they were, possessed a single trait of character in common with the law-defying wretches of our crowded cities. They committed, it is true, great excesses in villages where their voyages terminated, and when large numbers of them were assembled together. If they defied the law, it was not because it was irksome, but because they never felt its restraints. They

had their own laws, which they implicitly obeyed. With them "fair play was a jewel." If the crew of a rival boat was to be attacked, only an equal number was detached for the service; if the intruders were worsted no one interfered for their relief. Whatever was placed in their care for transportation was sacred, and would be defended from harm, if necessary, at the sacrifice of life. They would, from mere recklessness, pilfer the outbuildings of a farm-house, yet they could be entrusted with uncounted sums of money, and if anything in their possession became damaged or lost, they made restitution to the last farthing. In difficulties between persons, they invariably espoused the cause of the weaker party, and took up the quarrels of the aged, whether in the right or wrong.

As an illustration of their rude code of honor, is remembered the story of "Bill M'Coy." He was a master-spirit, and had successfully disputed for championship upon almost every famous sand-bar visible at low-water. In a terrible row, where blood had been spilled and a dark crime committed, Bill was involved. Momentarily off his guard, he fell into the clutches of the law. The community was excited—a victim was demanded to appease the oft-insulted majesty of justice. Brought before one of the courts holding at Natchez, then just closing its session for the summer vacation, he was fully committed, and nothing but the procurement of enormous bail would keep him from sweltering through the long months of summer in durance vile. It was apparently useless for him to expect any one to go upon his bond; he appealed, however, to those present, dwelt upon the horrors, to him more especially, of a long imprisonment, and solemnly asseverated that he would present himself at the time appointed for trial. At the last moment, Colonel W—, a wealthy, and on the whole rather a cautious citizen, came to the rescue, and agreed to pay ten thousand dollars if M'Coy did not present himself to stand his trial. It was in vain that the Colonel's friends tried to persuade him not to take the responsibility, even "the Court's" suggestion to let the matter alone was unheeded. M'Coy was released—shouldering his rifle, and threading his way through the Indian nation, in due time he reached his home in "Old Kaintuck."

Months rolled on, and the time of trial approached. As a matter of course, the probabilities of M'Coy's return were discussed. The public had doubts—the Colonel had not heard from him since his departure. The morning of the appointed day arrived, but the prisoner did not present himself. The attending crowd and the people of the town became excited—all except the Colonel despaired—evening was moving on apace—the court was on the point of adjourning, when a distant huzza was heard; it was borne on the wings of the wind, and echoed along, each moment growing louder and louder. Finally the exulting cry was caught up by the hangers-on about the seat of justice. Another moment and M'Coy—his beard long and matted, his hands torn to pieces, his eyes haggard, and sun-burnt to a degree that was painful to behold—rushed into the court-room, and from sheer exhaustion fell prostrate upon the floor.

Old Colonel W— embraced him as he would have done a long-lost brother, and eyes unused to tears filled to overflowing when M'Coy

related his simple tale. Starting from Louisville as "a hand on a boat," he found in a few days that, owing to the low stage of water in the river and other unexpected delays, it was impossible for him to reach Natchez at the appointed time by such a mode of conveyance. No other ordinary conveyance, in those early days, presented itself. Not to be thwarted, he abandoned "the flat," and, with his own hands, shaped a canoe out of the trunk of a fallen tree. He had rowed and paddled, almost without cessation, *thirteen hundred miles*, and had thus redeemed his promise almost at the expense of his life. His trial in its progress became a mere form; his chivalrous conduct and the want of any positive testimony won for him a verdict of not guilty, even before it was announced by the jury or affirmed by the judge.

An old resident upon the banks of the lower Mississippi relates an incident strikingly characteristic of the early times. On one occasion, when quite a young man, he was sitting upon the gallery of his house looking out upon the wide expanse of the river. In the far distance was seen, lazily moving with the current, a boat, upon the deck of which was dimly discernible two or three men and a number of women and children, evidently a family of emigrants. While he was mechanically gazing, he observed a rude fellow, just in front of him on the shore, endeavoring, by a series of ridiculous and indecent antics, to attract the attention of the persons on the boat. The effort was quite successful, as one of the men shook his fist threateningly, as an evidence of disapprobation. The landsman continued his performances until he showed a desire to insult the party in the boat. When this was clearly perceived and comprehended, "the man at the sweep" seized his rifle; but the distance from its proposed victim seemed to render it harmless, and the offensive conduct was persisted in. A light cloud of smoke and a dull sound followed, when the planter, to his astonishment, saw the reckless landsman press his hand to his side, stagger a pace or two, and fall heavily upon the ground. Hastening to his assistance, he arrived only in time to hear the last sigh of a dying man. The fatal rifle had done its work. The flat, meanwhile, disappeared behind a projecting point, and probably its occupants ever remained ignorant of the extent of the terrible revenge taken upon the thoughtless wretch ashore.

One of the most noted desperadoes of those early times was a man by the name of Mason. He first established himself at the "Cave in Rock"—a remarkable limestone formation about one hundred miles above the mouth of the Ohio—where, under the guise of keeping a store for the accommodation of boatmen and emigrants, he enticed them into his power. After murdering these victims of treachery, he would, by the hands of his confederates, send their boats to New Orleans for sale. He finally disappeared from his old quarters, and established himself on the great "trace" made through the wilderness of Mississippi and Tennessee by the flat-boatmen and traders while returning, by land, from New Orleans to their homes in the West. Mason increased in power, and, with his organized band, became so celebrated for his robberies and murders that he was dreaded from the banks of the Mississippi to the high lands of Tennessee. Over all this vast extent of country, if the buzzards

were seen high in the air, circling over any particular spot, the remark was made, "Another murder has been committed by Mason and his gang."

Numerous attempts were made to arrest him, but he always managed to escape. A romantic incident is related of one of these unsuccessful forays into his domain: A party of gentlemen, mostly wealthy planters from about the vicinity of Natchez, organized themselves into a party, and went in pursuit of the bold robber. Coming to the banks of Pearl River, "signs" were manifest that his camp was in the vicinity. Before attempting to make the proposed seizure, it was determined to rest the horses and partake of refreshments. These things having been accomplished, two of the party, seduced by the beauty and coolness of the stream, went in to bathe. In the course of their recreation they crossed to the opposite bank and found themselves in the hands of Mason. The outlaw, aware that he was pursued, determined to effect by stratagem what he did not deem policy to effect by force. It was therefore that he rushed down and seized the two prisoners. The party on the opposite shore saw the manœuvre, and instantly seized their arms. Mason, who had a commanding figure, admirably set off by a hunter's dress, presented a bold front, and announced that any further hostile demonstrations would result in instant death of his helpless captives. He then ordered his pursuers, if they desired to save the lives of their friends, to obey him implicitly and at once—that for the time being he was willing to negotiate for the safety of himself and men. He then ordered the party to stack their arms and deposit their ammunition on the beach, stating that he would send for them, but that any violence offered to his messenger or upon any visible hesitation to obey, he should destroy his prisoners; if otherwise, they were to be set at liberty—Mason pledging his honor that he would not take any advantage of his victory.

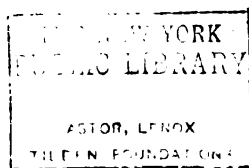
There was no choice. The weapons were duly deposited as directed, and two of Mason's gang, out of a number who had arrived, dashed into the stream to take possession of them, the prisoners meanwhile standing in full sight with rifles pointing at their heads. The desired property was finally placed in the outlaw's possession, whereupon he released his prisoners, and waving a good-humored farewell, he disappeared in the deep shadows of the surrounding wilderness.

Treachery, however, at last effected what courage and enterprise could not accomplish. A citizen of great respectability, passing with his two sons through the forest, was plundered by the bandits; their lives, however, were spared. The public was aroused. Governor Claiborne, of the Mississippi Territory, offered a large reward for the outlaw, dead or alive. The proclamation was widely distributed—a copy reached Mason, and was to him a source of intense merriment. Two of his band, however, were determined to obtain the reward; and while they were engaged with Mason in counting some money, one of them drove a tomahawk into his brain. His head was severed from the body, and, placed in a sack, borne in triumph to Washington, then the seat of the Territorial Government.

The head of the robber was recognized by many of the citizens who



CROSSING THE PRAIRIES.



saw it. Large crowds from the surrounding country assembled to assure themselves that their enemy was really dead, and curious to see the individuals whose daring prowess had relieved the country of a scourge. Among the spectators were two young men, who, unfortunately for the hero-traitors, recognized them as the robbers of their father and themselves. The wretches were seized, tried for their crimes, and hung. And thus ended the last and most noted gang of robbers that infested the "Natchez and Nashville trace."

At the close of the year 1811, the Valley of the Mississippi was agitated by repeated shocks of earthquakes, which continued, with more or less violence, for nearly three months. The country seventy miles below the mouth of the Ohio River seems to have been near the centre of the convulsions, and the locality, for many miles, was seamed with wide chasms, and disfigured with immense subterranean holes, the remains of which are still pointed out. The scenes which occurred during the several days that the shocks continued, are represented as being terrible beyond description, and many weeks elapsed before nature resumed her usual quiet sway. During the commotion, sulphureted gases tainted the air, and, for more than a hundred and fifty miles, perceptibly impregnated the rolling floods. The river banks, the sand-bars, and islands dissolved away, engulfing vast tracts of forest. Out of the seething waters rose huge snags and the remains of gigantic trees, which, after resting for ages in the accumulations of the bed of the river, were again born into daylight to become merciless enemies of navigation.

Every shock of the earthquake was accompanied with what seemed to be the discharges of heavy artillery, while every few moments the surface of the river rose and fell many feet. "Finally," records a witness of these strange phenomena, "after escaping many dangers, my boat suddenly swung around in the conflicting currents, and rapidly shot up the river. Looking ahead, I beheld the mighty Mississippi cut in twain, and pouring down a vast opening into the bowels of the earth. A moment more and the chasm filled; but the strong sides of the flat-boat were crumbled to pieces in the convulsive efforts of the flood to obtain its wonted level."

New Madrid, at that time a flourishing town, was completely ruined, and the bluff on which it was situated sunk down to the level of the river, and was afterward submerged. Most of the inhabitants would have met with the fate of those of Caracas, a city destroyed at the same time with New Madrid, had their houses been of similar material— heavy stone.

Among the incidents remembered is that of a poor Indian, who, completely bewildered by what he saw, stoically gave himself up to what he deemed to be inevitable destruction. Upon being asked what was the matter, he significantly and solemnly pointed to the heavens, and replied, "Great Spirit— whisky too much."

A few years ago, the Mississippi, from an unusual drought, shrunk within its banks to a comparatively small stream, and, as a consequence, under the protection of a high bank nearly opposite the town of Baton Rouge, there was exposed the wreck of a small boat, the timbers of

which, as far as could be ascertained, were in a good state of preservation. No one particularly noticed the object, because such evidences of destruction form one of the most familiar features of the passing scenery; yet there was really an intense interest connected with those blackened but still enduring ribs, for they were the remains of the first steamer that ever dashed its wheels into the waters of the Great West, and awakened new echoes along the then silent shores of the "Father of Waters." This boat was built at Pittsburg by Messrs. Fulton and Livingston. It was launched in the month of March, 1812, and landed at Natchez the following year, where she "loaded with passengers," and proceeded to New Orleans. After running some time in this newly-established trade, and meeting with a variety of misfortunes, she finally "snagged," and sunk in the half-exposed grave we have designated.

The two succeeding years produced the boats named *Comet* and *Vesuvius*, and also the *Enterprise*. This last-named vessel, after making two very successful trips from Pittsburg to Louisville, took in a cargo of ordnance stores, and, on the 1st of December, 1814, under command of Captain H. M. Shreeve, started from New Orleans, and was the first steamer that made the entire passage from that city to Pittsburg. This was considered a great triumph, for it was doubted whether this new power could displace the strong arms of the keel-boatmen in stemming the powerful tide.

On this "return trip" from New Orleans, the *Enterprise*, starting for Pittsburg, reached Louisville in *twenty-five days*. The excitement occasioned by this event can not now be imagined. Captain Shreeve was greeted by a public demonstration. Triumphal arches were thrown across the streets, and his appearance every where called forth bursts of enthusiasm. At the public demonstration given in his honor patriotic speeches were made, and it was formally announced that the *Enterprise* had accomplished all that was possible in inland navigation. Nothing tended to dampen the hilarity of the hour but a suggestion of the gallant Captain, "that, under more favorable circumstances, he could make the same trip in twenty days!" This was deemed an impossibility, and his boast was looked upon as the pardonable weakness of a man already intoxicated with unprecedented success.

Thus the dreams of Fulton became realities: as a prophet, he foretold the future glory of the valley of the Mississippi; as more than a seer, his genius provided the means for its realization.

After that time boats continued to increase, their usefulness was acknowledged, and the means for the glorious triumph of Western commerce was complete. As the pioneer of commerce, steam aided in opening all the rivers of the West, and its benefits in this respect can not be appreciated. The ascent of the river in keel-boats occupied one hundred and twenty days, and during the dry season and the time of floods it could not be ascended at all. The same journey, by the means of steam, is now accomplished in ten or fifteen days, and at all seasons of the year. The strong arm of muscle has given way to unfeeling and never-tiring machinery—the rude craft is displaced by floating palaces. Who can correctly estimate the mighty triumphs of steam in the Valley of the Mississippi?

The crowd of passengers ordinarily witnessed on our Mississippi steamers present more than is any where else observable in a small space, the cosmopolitanism of our extraordinary population. Upon their decks are to be seen immigrants from every nationality in Europe; in the cabin are strangely mingled every phase of social life—the aristocratic English lord is intruded upon by the ultra socialist; the conservative bishop accepts a favor from the graceless gambler; the wealthy planter is heartily amused at the simplicities of a “Northern fanatic;” the farmer from about the arctic regions of Lake Superior exchanges ideas, and discovers consanguinity, with a heretofore unknown person from the everglades of Florida; the frank, open-hearted men of the West are charmed with the business-thrift of a party from “down East;” politicians of every stripe, and religionists of all creeds, for the time drop their wranglings in the admiration of lovely women, or find a neutral ground of sympathy in the attractions of a gorgeous sunset.

The passengers being usually together from five to seven days, there is, from necessity, encouraged a desire to be pleased, and many of the happiest reminiscences of well-spent lives are connected with the enjoyments, novelties and intellectual pleasures of such prolonged trips.

After the “first day out,” genial minds naturally gather into sympathetic circles; conversation is relieved by continued changes of scene; every “landing place” suggests a reminiscence of “early times,” and varies, without interruption, the flow of conversation. Groups of persons snugly dispose of themselves under the shady sides of the “guards;” among which are often found ladies and gentlemen but recently from the worn-out fields and ruined cities of Central Europe, and they find something particularly inspiring in the surrounding evidences of vitality, as exhibited in the rich soil and hopeful “settlements.” There are also present persons who have for many years been in some way connected with the river, who have learned its traditions, and love to repeat over the thousand reminiscences that are constantly revived by the moving panorama.

The negroes of the Mississippi are happy specimens of God’s image done up in ebony, and in many lighter colors, and they have frequently a deserved reputation as “deck-hands.” It is astonishing what an amount of hard work they will perform, and yet retain their vivacity and spirits. If they have the good fortune to be employed on a “bully boat,” they take a lively personal interest in its success, and become as much a part of the propelling machinery as the engines. Their custom of singing at all important landings, has a pleasing and novel effect; if stimulated by an appreciative audience, they will roll forth a volume of vocal sounds that, for harmony and pathos, sink into obscurity the best performances of “imitative Ethiopians.”

With professional flat-boatmen they are always favorites, and at night, when the “old ark” is tied up, their acme of human felicity is a game of “old sledge,” enlivened by a fiddle. On such occasions the master of the instrument will touch off the “Arkansas traveler,” and then gradually sliding into a “Virginia hoe-down,” he will be accompanied by a genuine darkie keeping time, on the light fantastic heel-and-toe tap. It

is a curious and exciting struggle between cat-gut and human muscle. It affects not only the performers, but the contagion spreads to the spectators, who display their delight by words of rough encouragement, and exclamations of laughter, which echo along the otherwise silent shores.

But the glory of the darkie deck-hand is in "wooding up." On a first-class steamer there may be sixty hands engaged in this physical contest. The passengers extend themselves along the guards as spectators, and present a brilliant array. The performance consists in piling on the boat one hundred cords of wood in the shortest possible space of time. The steam-boilers seem to sympathize at the sight of the fuel, and occasionally breathe forth immense sighs of admiration—the pilot increases the noise by unearthly screams on the alarm whistle. The mate of the boat, for want of something better to do, divides his time between exhortations of "Oh, bring them *shavings* along!" "Don't go to sleep at *this* frolic," and by swearing of such monstrous proportions, that even good men are puzzled to decide whether he is really profane or simply ridiculous. The laborers pursue their calling with the precision of clock-work. Upon the shoulders of each are piled innumerable sticks of wood, which are thus carried from the land into the capacious bowels of the steamer. The "last loads" are shouldered—the last effort to carry "the largest pile" is indulged in.

The rafts on the Mississippi are crude masses of cypress timber, which find ready sale at the numerous saw-mills in the vicinity of New Orleans. By an accepted law of the river, everything is obliged to get out of the way of a raft. We don't know of any persons more independent than the first officers of these primitive flotillas. Their chief unhappiness is occasioned by the sneering remarks made by spectators, relative to the speed of the rafts, and allusions to their propensity to leak, and of the necessity of having the bottom pumped dry. The mention of any of these subjects always excites the ire of the raftsmen, and for the ten thousandth time, and for the same cause, they get in a passion and hurl back abuse. They also have their seasons of real trouble; the sand-bars check their onward course, and the swift running "shutes" "suck them" into unknown and impossible-to-get-out-of waters. Their time of triumph, however, arrives when some brisk wind drives them crashing against the sides of a flat-boat, and if they can "put a scare" on a first-class steamer, their joy is complete.

MISSOURI.

Few of our readers, we suppose, are prepared to be told that Missouri is not only one of the largest States in the Union, but that it is unsurpassed, and, perhaps, unequaled by any other in natural resources. Yet such is the fact; taking into view its advantages of climate, soil, rivers, variety of agricultural productions, and mineral wealth, we do not know of any State which is entitled to take precedence of this.

The history of Missouri, as a home of civilized man, begins with the cession by France to England of her possessions east of the Mississippi, at the peace of 1763. The French, then relinquishing their possessions on the east of the river, began to make progress in colonizing its western banks. The first town founded in Missouri was St. Geneviève, which was laid out by a party of French from Kaskaskia, in Illinois, in the course of the year of the cession to Great Britain. Other settlements, west of the Mississippi, were about this time formed. In the year 1764, the city of St. Louis was founded by M. Laclède, a partner in a company which was extensively engaged in the fur trade, a business at that time already very lucrative. It was selected as the *depôt* for Upper Louisiana, in which term was included all the state of Missouri and the territory west and northwest of the same. In this wide tract of country, a monopoly of the trade with the Indian tribes had been granted by M. d'Abaddie, Director-General of Louisiana, to the company just alluded to. It was wealthy, and clothed with very valuable privileges, so that the settlement at St. Louis almost immediately assumed considerable importance. The selection of a place, moreover, was so judicious, that, independently of any other circumstances, it could not fail to attract early attention, being so evidently destined to become, what we now live to see it, the metropolis of a wide-spread and fertile region. It is one of those points which seemed formed by nature for the sites of large cities, uniting all the advantages that are essential, on the one hand, for the comfort and health of their immediate inhabitants, and, on the other, for the convenient exportation of the produce of the country, and the importation of whatever is needed for the supply of its wants. Nothing can permanently keep back a place possessing such advantages. It is safe to foretell, that in St. Louis will prove to have been laid the foundations of one of the largest cities of the West, perhaps of the largest inland city of the United States.

The fur trade, and the exportation of lead, constituted the chief business of the early settlers of Upper Louisiana, as indeed they made the occupation of the majority of its inhabitants down to the period of its coming into the possession of the United States. Of the emigrants into this region, in the years immediately succeeding its first occupation by the French, some began to form new settlements, as Vuide Poche, afterward called Carondelet, Florissant, and Les Petites Côtes, now St. Charles; others joined the infant settlement at St. Louis, which, soon coming to be considered the capital of Upper Louisiana, became the residence of the French and afterwards the Spanish governors.

But the hope of living under their own laws and rulers, which had brought the settlers together, was speedily disappointed. The weakness of France had already compelled her to relinquish her last hold upon America. By a treaty, which was made with Spain in 1762, but was not fully carried into execution until 1763, she had ceded to that power all her territories west of the Mississippi, together with the island and city of New Orleans.

"The fate of the Louisianians," says Stoddard, "was made known to them by a letter signed by the French king, dated April 21st, 1764, addressed

to M. d'Abaddie, whom he calls Director-General and Commandant of Louisiana, informing him of the treaty of cession, and directing him to give up to the officers of Spain the country and colony of Louisiana together with the city of New Orleans and the military posts. He expressed a desire for the prosperity and peace of the inhabitants of the colony, and his confidence in the affection and friendship of the king of Spain. He at the same time declared his expectation, that the ecclesiastic and religious houses, which had the care of the parishes and missions, would continue to exercise their functions; that the superior council and ordinary judges would continue to administer justice according to the laws, forms, and usages of the colony; that the inhabitants would be preserved and maintained in their estates, which had been granted to them by the governor and director of the colony; and that, finally, all these grants, though not confirmed by the French authorities, would be confirmed by his Catholic Majesty. The treaty of cession, dated the third of November, 1762, was never published, and the terms of it remain a secret to this day; but there is good reason to believe that the sentiments expressed by the French king, corresponded with the stipulations it contained."

Four years elapsed before any attempts were made on the part of Spain to take possession of her newly-acquired territory. Even then the attempt was unsuccessful. The Spanish governor, who arrived in 1776, with a military force, found it prudent to abandon his design and return to Havana, so great was the excitement among the colonists, because the transfer had been made without their consent.

"Things remained in this situation," says Stoddard, "till the seventeenth day of August, 1769, when O'Reilly arrived, and took peaceable possession of the colony. He immediately selected twelve of the most distinguished leaders of the opposition, as the victims of resentment. Six of them were devoted to the halter, to gratify the malice of arbitrary power, and to strike terror into the other malecontents. The other six, deemed less guilty, and surely they were much less fortunate, were doomed to the dungeons of Cuba. This scene of blood and outrage made a deep impression of horror on the minds of the people, and will never be forgotten. In 1770, the Spanish authorities were established in Upper Louisiana.

"O'Reilly was the first governor and intendant-general who exercised the Spanish power in Louisiana. As governor-general, he was vested with the supreme power of the province, both civil and military; and, as intendant-general, he granted lands, prescribed the conditions, and confirmed the concessions made by his subordinates; superintended the fiscal department, and the affairs of the Indians."

On the twenty-sixth of November, 1769, he issued a proclamation, changing the form of government in Louisiana, abolishing the authority of the French laws, and substituting those of Spain. From the time of its promulgation, the French laws ceased to have any authority, and all controversies were tried and decided conformably to the Spanish laws. To the credit of Spain, however, it should be recorded, that her governors conducted themselves with almost uniform moderation and impartiality

towards the French inhabitants. This is abundantly proved by the fact, that the spirit of society in Louisiana does not seem to have been materially changed by the transfer to Spanish authority. New laws were of course introduced; but, except at the very first, no opposition was made to their administration, and no outbreaks of public feeling took place. The manners and customs of the people continued French; and, at the present day, we can hardly find any trace of the Spanish dynasty. It is, moreover, a remarkable fact, that when Louisiana again came under the French dominion, in 1800, the French inhabitants were dissatisfied with the change.

In 1770, the Spanish governor, M. Rious, began to exercise authority in Upper Louisiana. The house in which he resided yet stands in St. Louis. It is built in an old-fashioned, substantial manner, with a portico all around, and will probably long remain, a memorial of the past.

From this date to the year 1800, the colonies in Upper Louisiana experienced scarcely any thing of great interest. The most remarkable events were, an attack by the British and Indians on St. Louis, in 1778; an unparalleled rise of the Mississippi, in 1785; and the arrival, at St. Louis, of ten keel-boats, in 1788; each of which events gave a name to the year in which it occurred. The attack referred to was instigated by the Canadian English, by way of retaliation against Spain, for the part which she took in the American revolution. The assailing force consisted of about fifteen hundred men, of whom the greater part were Indians. The whole Spanish settlements were in great danger, but the inhabitants of St. Louis behaved in the most spirited manner. When the attack was first threatened, they fortified the city with a breast-work, formed of the trunks of trees, placed upright upon the ground, with their interstices filled with earth. It formed a semi-circle, extending to the bank of the river at both extremities, and terminating at each in a small fort. Three gates, each defended by a heavy cannon, afforded a communication with the country. The remnants of these defenses yet exist, and are pointed out by the old inhabitants. The attack itself differed in nothing from the usual mode of Indian warfare. It was entirely unsuccessful, and was followed by no important result.

In the year 1800, all the territory west of the Mississippi was ceded back again by Spain to France. But during the three years of the continuance of French authority, nothing important occurred. No alteration was made in the jurisprudence of either Upper or Lower Louisiana, and the Spanish laws remained in full force, as the laws of the whole province; a fact which is very important to those who would understand the legal history, and some of the present laws, of Missouri.

By the treaty of April thirtieth, 1803, Louisiana was purchased by the United States from the French crown; and, six months after, the President was authorized to take formal possession. W. C. C. Claiborne was appointed governor and intendant-general of Louisiana, and Amos Stoddard was commissioned to exercise the powers and prerogatives of the Spanish lieutenant-governor of that province. The province of Louisiana was subsequently divided into two parts, the territory of Orleans and the district of Louisiana; the latter comprehended the present state

of Missouri, and, as a matter of convenience, was placed under the jurisdiction of the governor of Indiana, in whom all necessary powers had been vested. The governor at that time was General William H. Harrison, and by him the government was organized and put in motion, in a manner most creditable to him and satisfactory to Congress. In 1805, the district was organized as a territory, the legislative power being vested in a governor and three judges. In 1812, an act of Congress gave it its present name, and transferred the legislative function to a general assembly. In 1820, a state government was formed, a constitution being established on the nineteenth day of July of that year. An act of Congress, passed after a well known protracted debate, gave Missouri admission to the Union, on the second day of March, 1821. From the period of the transfer of Louisiana to the jurisdiction of the United States, the country, which heretofore had been slowly settled, and by people of little enterprise, had begun to be very rapidly filled up. A new population then came in, and a new aspect was given to every thing. The laws began to be more fixed and better understood, and their administration to be more impartial. The settlements, after the lapse of a few years, became more secure from Indian depredations, and every thing began to bear the marks of American enterprise. The original French inhabitants were, indeed, not much, if at all, benefited by these changes. Some of them were made, suddenly, very rich; but the quiet and peaceful lives of the majority were sadly disturbed. In general, they could not sympathize with the schemes, nor compete with the enterprise of the new comers, and were, therefore, soon thrown into painful obscurity. For a long time after the introduction of American authorities, they mourned bitterly over the innovations, which, however useful, their unambitious minds could not regard as improvements. What was their loss, however, was the country's gain. Notwithstanding several severe checks to immigration, the population rapidly increased. The late war, for a time, effectually repressed the progress of the country, and many settlements, as those of Boon's Lick and Salt River, were entirely broken up. But peace was no sooner declared, than crowds of emigrants, chiefly from Kentucky, Tennessee, and the Carolinas, began to cross the Mississippi; and, in the year 1817, the population of Missouri was supposed to be not less than sixty thousand.

It was not the French alone who had cause to lament the occupation of Missouri by the Americans. To the Indians it brought the most unhappy consequences. That ill-fated people quickly perceived the change in the policy toward them, introduced by the new government. So long as they had none but the French to deal with, they were generally pacific. They had few causes of complaint, and no wrongs to avenge, and they very seldom raised the tomahawk against their white neighbors. With the exception of a few instances of inroad for plunder, the settlements remained undisturbed. The French, it is well known, have always pursued an indulgent policy toward the Indians. But, no sooner do the English or Americans come near them, than war and massacres begin. So it was in Missouri. The Americans had scarcely taken possession of that country, before causes of contention were found; the fierce passions of the

Indians were aroused, but little pains taken to appease them; the border warfare began, with all its horrors; and, when the war with England commenced, many of the tribes were ready to give her that assistance which she has never been backward to ask, or scrupulous to use. The years from 1811 to 1814, inclusive, witnessed many bloody contests, in different parts of the State. The enterprise of Tecumseh, to excite a general Indian war, was attended with partial success; but some of the principal tribes held back, and the determined measures of the government soon quelled the disturbances. Ports were built at several important points on the Missouri and Mississippi; and, after the year 1814, no further contests ensued, except such as were immediately, and without much bloodshed, decided. The Indians, since that time, have been gradually, but rapidly, receding before the whites.

Between the years 1817 and 1824, in consequence of the commercial embarrassments, and the sudden check given to the fever of speculation, in the western states, Missouri made comparatively little progress. But, since then, she has increased very rapidly, both in population and riches. The country is settled by a substantial class of people, chiefly farmers, from the more northern of the slave-holding states. Until recently, they have not exhibited the same degree of public spirit and enterprise, that is found in some others of the western states; but they have now awakened to the necessity of internal improvements, and several important works are projected or advancing. Education, for which ample provision is made by law, is also beginning to receive the attention which it deserves.

The natural resources of this state are unusually varied and great. Its most remarkable feature is its mineralogical wealth. Almost every county in the state contains mines of some kind or other, many of which are unparalleled in richness. In a single county (Washington) are found iron, lead, copper, copperas, chalk, black-lead, brimstone, coal, freestone, limestone, millstones, resembling the French buhr, and some indications of silver and gold; most of them in very large quantities. The nitrate of potash, or salt-petre, occurs in several caverns on the Merrimac and Current rivers, in great abundance; also upon the Gasconade, a hundred miles west of St. Louis. Salt springs are found in almost every part of the state. Compact limestone is very abundant. It constitutes the basis rock at St. Louis, where it answers a valuable purpose as a building material. It is of a grayish blue color, and contains many fossil remains. Chalk has been discovered on the banks of the Mississippi, but in what quantities we do not know. Sulphate of lime, or gypsum, exists in great abundance. It is found on the Kansas river, the cliffs of which often consist of solid strata of this mineral; also, in Jackson county and elsewhere. Alum (sulphate of alumine and potash) is found effloresced, in a cave in Bellevue, Washington county. Buhr stone, said to be equal to the French, is in great abundance on the Osage and Gasconade rivers. Potter's clay has been discovered, of the best quality, on the right bank of the Mississippi, about forty miles above the junction of the Ohio, and extending for thirty-four miles up the river. The stratum varies in thickness from one to ten feet, rests on sandstone, and is covered by shell

limestone, containing well characterized nodules and veins of flint. It is also found, ten feet below the surface, at Gray's Mine, Jefferson county, where it is snow white, unctuous, becomes plastic by mixture with water, and is infusible at a very high heat. Red chalk is found in Washington county. Several springs in the vicinity of Herculaneum, and one near St. Louis, are highly impregnated with sulphur, which is deposited on the stones over which the water runs, in a yellow crust. Coal, of a good quality, is found in almost all the counties of the state. Sulphuret of zinc is found, associated with sulphuret of lead, at the mines in Washington, Jefferson, and St. François counties. Oxyd of manganese and sulphuret of antimony have both been discovered in Washington county and on the Merrimac.

But the great mineral wealth of Missouri is in its mines of copper, lead, and iron. We are not informed of any copper mines in the state which are in actual operation; but the existence of the mineral, in great quantities, has been ascertained beyond question. We have seen several beautiful specimens, brought from different parts of the state, one of which, found in Washington county, almost upon the surface of the ground, was the richest that we have ever seen. The lead mines of the state are better known. They are found, to the greatest extent, in the counties of Washington, St. Geneviève, St. François, Madison, and Jefferson, and also on the Osage river. Some of them have been worked for eighty years.

It is impossible to enumerate all the mines in Washington county, for the whole county is, as it were, one vast mine. The mineral obtained here by the first process of smelting, produces from sixty-five to seventy per cent., and by the second process about fifteen, making, in all, about eighty-five per cent. of clear, good lead.

These are probably the richest beds of ore in the state, but new discoveries of them, or of indications of their presence, are every year made, in different places, and probably not one-half of them are yet known.

The iron mines are, however, the most remarkable. Some of these are so rich and so unprecedented in their character, that the descriptions of them are almost incredible, and seem like fabulous stories. Washington, St. François and Madison counties, which are adjacent to each other, contain enough iron to supply the world for ages to come.

The Iron Mountain, as it is commonly called, in the southeast corner of Washington county, is one of the most remarkable curiosities in the world. It is about one mile broad at the base, three hundred and fifty or four hundred feet high, and three miles long, literally covered with a bright shining ore, having every appearance of metal which has been smelted. At the base of the mountain, the ore is in pieces of a pound weight or more, and as you approach the apex of the hill, the pieces increase in size, to thousands of tons weight, until they assume the appearance of huge rocks, presenting to the astonished beholder a spectacle which cannot be described; and those large masses are of a quality surpassing any thing of the kind heretofore known to the world. Six miles south, in Madison county, is another mountain, larger than the one above, known in this county by the name of "Pilot Knob." It is entirely covered with iron ore, larger and more abundant than the former.

Besides these iron mountains, all the hills of that district contain great quantities of ore. That whole tract of country is a vast bed of iron. The ore is, besides, remarkably pure. That from the "mountains" does not need to undergo any intermediate process, but may be wrought without being smelted into pigs. A pen-knife was recently made from the ore, with an exquisite polish and a fine edge. We need not speak of the immense value of such mines as these. We should remark, however, that they are perfectly accessible, and their treasures may be brought into the market at as small an expense as the nature of the commodity admits. They are situated only about forty miles from the Mississippi, and but seventy miles from St. Louis. An abundance of stone-coal has lately been discovered in their vicinity, and the whole district abounds with water power. It will not be many years before their wealth is poured into St. Louis, and thence throughout the whole land. They render it certain that Missouri must, at no very distant day, become one of the most important manufacturing states in the Union.

Except in the mineral districts, which are, in general, comparatively barren, the soil is uniformly good. It is, besides, very varied in its nature, so as to be adapted to a great variety of productions. The northern counties contain large tracts of excellent land, calculated for hemp and flax. Cotton is cultivated, although not to such advantage as in Mississippi and other southern States. Tobacco is raised in large quantities, and of the best quality. All the varieties of grain and grasses yield abundant crops. Garden vegetables grow to great perfection. Fruit trees, of all the kinds which belong to temperate climates, are successfully cultivated, and the fruit is at least equal to that in the eastern States. The timber includes almost all the valuable and ornamental varieties of the temperate zone. There are extensive pine forests on the Gasconade and Merrimac rivers. The facilities for raising stock are great, and farmers direct their attention very much to this branch of their business. There are many parts of the State, consisting of rocky points and broken sections of country, which seem peculiarly fitted for sheep-pastures, and hold out great inducements for the operations of wool-growers. In short, the agriculturist can hardly go amiss, to whatever he turns his attention. There is not, perhaps, so large a body of rich land as in some other States, but there is so favorable an alternation of prairie and hilly country, of meadow and woodland, that it is all rendered valuable.

The State is throughout well watered. Mill-sites and water-power are found almost wherever they are needed. The Missouri River passes through the richest agricultural portion of the State, and is navigable for steamboats twenty-five hundred miles from its mouth. It has almost innumerable tributaries, which, together with those of the Mississippi, irrigate every part of the State. The Osage river is one of the most considerable. It empties into the Missouri, ten miles below Jefferson City, and is navigable for moderate-sized boats for several hundred miles. The Gasconade is also a very important river, falling into the Missouri a hundred miles from its mouth, and passing through a very fertile and well-timbered country.

The climate of Missouri is, in general, pleasant and salubrious. Like that of all North America, it is very changeable, and subject to extremes of heat and cold; but it is, we think, decidedly milder, if we take the whole year through, than that of the same latitudes east of the mountains. We are aware that, in this opinion, we differ from a greater part of the authorities upon the subject of climate in the United States; but we have had ample means of observation, and we are confident in the conclusion now expressed. We think, that, while the summers are not at all more oppressive than they are in the corresponding latitudes on and near the Atlantic coast, the winters are shorter, and, with the almost universal exception of a few weeks of severe weather in February, very much milder. We are sure that we have never witnessed, in any eastern city, a continuance of such beautiful weather, in the months of November, December, and January, as we have seen in the central parts of Missouri. The spring season, except the first half of March, is almost uniformly delightful.

In point of healthiness, this State will bear a favorable comparison with the other western States. It is not, of course, free from the diseases to which all newly settled countries are subject, such as "fever and ague," the disease which undermines many a strong constitution, and which, although not dangerous in itself, prepares the way for more fatal disorders. But, in most respects, the whole State may be considered healthy. The disease alluded to is generally confined to the borders of the rivers, and may be avoided by proper care.

The waters of the Missouri, and of most of its tributaries, in consequence of the nature of the soil that they flow through, are very wholesome, in which respect they are much superior to the Upper Mississippi, the Illinois, and, we think, the Ohio. The Missouri is singularly turbid; so much so, that it gives the same character to the whole Lower Mississippi; and new-comers are unwilling to drink its waters; but they soon learn to think it the pleasantest and most refreshing beverage, and to prefer it, when settled, to the clearest spring water. Chemists who have analyzed it declare, that it is entirely free from all hurtful admixtures, which can by no means be said of the water of most of the Western rivers. This circumstance, of course, exerts a highly favorable influence on the health of the State. Very exaggerated reports have gone abroad, of the prevalence and fatality of the bilious fever. It is certainly the most fatal disease of the region, but moderate caution and foresight are sufficient to guard against it, and it never assumes an epidemic character. The freedom from consumption and its train of kindred disorders, of which there are hardly any cases in Missouri, is more than a set-off to all diseases which are peculiar to that section of the country.

WESTERN SCENERY.

The traveler who visits the Mississippi Valley for the first time, advancing from the east to the Ohio river, and thence proceeding westward, is struck with the magnificence of the vegetation which clothes

the whole surface. The vast extent and gloomy grandeur of the forest, the gigantic size and venerable antiquity of the trees, the rankness of the weeds, the luxuriance and variety of the underbrush, the long vines that climb to the tops of the tallest branches, the parasites that hang in clusters from the boughs, the brilliancy of the foliage, and the exuberance of the fruit, all show a land teeming with vegetable life. The forest is seen in its majesty; the pomp and pride of the wilderness is here. Here is nature unspoiled, and silence undisturbed. A few years ago this impression was more striking than at present; for now, farms, villages, and even a few large towns, are scattered over this region, diversifying its landscapes, and breaking in upon the characteristic wildness of its scenery. Still there are wide tracts remaining in a state of nature, and displaying all the savage luxuriance which first attracted the pioneer; and upon a general survey, its features present at this day, to one accustomed only to thickly peopled countries, the same freshness of beauty, and the immensity, though rudeness of outline, which we have been accustomed to associate with the landscape of the West.

We know of nothing more splendid than a western forest. There is a grandeur in the immense size of the trees—a richness in the coloring of the foliage, superior to any thing that is known in corresponding latitudes—a wilderness and an unbroken stillness that attest the absence of man—above all there is a vastness, a boundless extent, an uninterrupted continuity of shade, which prevents the attention from being distracted, and allows the mind to itself, and the imagination to realize the actual presence and true character of that which had burst upon it like a vivid dream. But when the traveler forsakes the Ohio, and advancing westward ascends to the level of that great plain which constitutes the surface of this region, he finds himself in an open champagne country—in a wilderness of meadows clad in grass, and destitute of trees. The transition is as sudden as complete. Behind him are the most gigantic productions of the forest—before him are the lowly, the verdant, the delicate inhabitants of the lawn; behind him are gloom and chill, before him are sunlight and graceful beauty. He has passed the rocky cliff, where the den of the rattlesnake is concealed, the marshes that send up foetid stems of desolating miasma, and the canebrake where the bear and panther lurk; and has reached the pasture where the deer is feeding, and the prairie flower displays its diversified hues. He has seen the wilderness in all its savage pomp and gloomy grandeur, arrayed in the terrors of barbarian state; but now beholds it in its festal garb, reposing in peace, and surrounded by light gayety and beauty.

This distinction is not imaginary; no one can pass from one part of this region to another, without observing the natural antithesis of which we are speaking; and that mind would be defective in its perceptions of the sublime and beautiful, which did not feel, as well as see, the effect of this singular contrast. There is in the appearance of one of our primitive forests a gloomy wildness, that throws a cast of solemnity over the feelings; a something in the wide-spread solitude which suggests to the traveler that he is far from the habitations of man—alone, in the companionship of his own thoughts, and the presence of his God. But the prairie

landscape awakens a different train of thought. Here light predominates instead of shade, and a variety of hue instead of a wearisome exuberance and monotony of verdure; while the extent of the landscape allows the eye to roam abroad, and the imagination to expand, over an endless diversity of agreeable objects.

The remarkable contrast is equally striking in the contour of the surface—in the difference between the broken and the level districts. If the traveler looks down from the western pinnacles of the Alleghany, he beholds a region beautifully diversified with hill and dale, and intersected with rapid streams. In western Pennsylvania, Virginia, Kentucky and Tennessee, he finds every variety of scenic beauty—the hill, the plain, the valley, the rocky cliff, the secluded dell, the clear fountain, and the rivulet dashing headlong over its bed of rock. The rivers have each their characteristic scenery. The Monongahela, winding through a mountainous country, overhung with precipices, and shaded by heavy forests, with a current sufficiently gentle to be easily navigable to steamboats, has its peculiar features, which are instantly lost when the traveler has passed on the bosom of the Ohio. The winding course and picturesque scenery of the Ohio, between Pittsburgh and Wheeling, impress the beholders as strictly wild and beautiful; below the latter place, the features of the landscape become softened, the hills recede farther from the river, are lofty, and more rounded; and again, after passing Louisville, these elevations are seen less frequently, and gradually melt away, until the river becomes margined by low shores, and one continuous line of unbroken forest. But if we leave the gentle current of the Ohio, and ascend the Kentucky or the Cumberland, we again find rapid streams, overhung with precipices, and a country abounding in the diversities of a wild and picturesque scenery. Here may be seen the rapid current foaming and eddying over beds of rock, and the tall peak towering above in solitary grandeur. Here the curious traveler may penetrate the gloom of the cavern, may clamber over precipices, or refresh himself from the crystal fountain bursting from the bosom of the rock. But he will find every hill clad with timber, every valley teeming with vegetation; even the crevices of the limestone parapets giving sustenance to trees and bushes.

The scenery presented on the western shore of the Ohio is altogether different. The mountain, the rock, the precipice, and limpid torrent, are seen no more; and the traveler as he wanders successively over Indiana, Illinois, Missouri, and the vast wilderness lying beyond, is astonished at the immensity of the great plain, the regularity of its surface, and the richness, the verdure, the beauty, of its wide-spread meadows.

It is, perhaps, not easy to account for the intense curiosity and surprise which have been universally excited by the existence of these plains; for they have been found in various parts of the world. The steppes of Asia, the pampas of South America, and the deserts of Africa, are alike destitute of timber. But they have existed from different causes; and while one has been found too arid and sterile to give birth to vegetation, and another snow-clad and inhospitable, others exist in temperate climates and exhibit the most amazing fertility of soil. These facts show

that there are various causes inimical to the growth of trees, and the forest is not necessarily the spontaneous product of the earth, and its natural covering, wherever its surface is left uncultivated by the hand of man. The vegetable kingdom embraces an infinite variety of plants, "from the cedar of Lebanon to the hyssop that groweth on the wall;" and the plan of nature, in which there is no miscalculation has provided that there shall be a necessary concatenation of circumstances—a proper adaptation of soil, climate, moisture—of natural and secondary causes, to produce and to protect each: just as she has assigned the wilderness to the Indian, the rich pasture to the grazing herd, and the Alps to the mountain goat.

We apprehend that the intense astonishment with which the American pioneers first beheld a prairie, and which *we all* feel in gazing over those singularly beautiful plains, is the result of association. The adventurers who preceded us, from the champagne districts of France, have left no record of any such surprise; on the contrary, they discovered in these flowery meadows something that reminded them of home; and their sprightly imaginations at once suggested that nothing was wanting but the vineyard, the peasant's cottage, and the stately chateau, to render the resemblance complete. But our immediate ancestors came from lands covered with wood, and in their minds the idea of a wilderness was indissolubly connected with that of a forest. They had settled in the woods upon the shores of the Atlantic, and there their ideas of a new country had been formed. As they proceeded to the west, they found the shadows of heavy foliage deepening upon their path, and the luxuriant forest becoming at every step more stately and intense, deepening the impression that as they receded from civilization, the woodland must continue to accumulate the gloom of its savage and silent grandeur around them—until suddenly the glories of the prairie burst upon their enraptured gaze, with its widely-extended landscape, its verdure, its flowers, its picturesque groves, and all its exquisite variety of mellow shade and sunny light.

Had our English ancestors, on the other hand, first settled upon the plains of Missouri and Illinois, and the tide of emigration were now setting toward the forests of Ohio and Kentucky, climbing the rocky barriers of the Alleghany ridge, and pouring itself down upon the wooded shores of the Atlantic, the question would not be asked how the western plains became denuded of timber, but by what miracle of Providence a vast region had been clothed, with so much regularity, with the most splendid and gigantic productions of nature, and preserved through whole centuries from the devastations of the frost and the fire, the hurricane and the flood. We have all remarked how simple and how rapid is the process of rearing the annual flower, or the more hardy varieties of grass, and with what ease a spot of ground may be covered with a carpet of verdure; and we know equally well how difficult it is to rear an orchard or a grove, and how numerous are the accidents which assail a tree. An expanse of natural meadow is not, therefore, so much an object of curiosity as a continuous forest; the former coming rapidly to perfection, with but few enemies to assail it, the latter advancing slowly

to maturity, surrounded by dangers. Hence there is no scene so imposing, none which awakens sensations of such admiration and solemnity, as the forest standing in its aboriginal integrity, and bearing the undisputable marks of antiquity—where we stand upon a soil composed of vegetable mould, which can only have been produced by the undisturbed accumulation of ages, and behold around us the healthful and gigantic trees, whose immense shafts have been increasing in size for centuries, and which have stood during that whole time exposed to the lightning, the wind, and the frost, and to the depredations of the insect and the brute.

The scenery of the prairie country excites a different feeling. The novelty is striking, and never fails to cause an exclamation of surprise. The extent of the prospect is exhilarating; the verdure and the flowers are beautiful; and the absence of shade, and consequent appearance of a profusion of light, produces a gayety which animates the beholder.

It is necessary to explain that these plains, although preserving a general level in respect to the whole country, are yet in themselves not *flat*, but exhibit a gracefully waving surface, swelling and sinking with an easy slope, and a full rounded outline, equally avoiding the unmeaning horizontal surface, and the interruption of abrupt or angular elevations. It is that surface which, in the expressive language of the country, is called *rolling*, and which has been said to resemble the long heavy swell of the ocean, when its waves are subsiding to rest after the agitation of a storm.

It is to be remarked, also, that the prairie is almost always elevated in the centre, so that in advancing into it from either side, you see before you only the plain, with its curved outline marked upon the sky, and forming the horizon, but on reaching the highest point, you look around upon the whole of the vast scene.

The attraction of the prairie consists in its extent, its carpet of verdure and flowers, its undulating surface, its groves, and the fringe of timber by which it is surrounded. Of all these, the latter is the most expressive feature—it is that which gives character to the landscape, which imparts the shape and marks the boundary of the plain. If the prairie be small, its greatest beauty consists in the vicinity of the surrounding margin of woodland, which resembles the shore of a lake, indented with deep vistas like bays and inlets, and throwing out long points, like capes and headlands; while occasionally these points approach so close on either hand, that the traveler passes through a narrow avenue or strait, where the shadows of the woodland fall upon his path—and then again emerges into another prairie. Where the plain is large, the forest outline is seen in the far perspective like the dim shore when beheld at a distance from the ocean. The eye sometimes roams over the green meadow, without discovering a tree, a shrub, or any object in the immense expanse, but the wilderness of grass and flowers; while at another time, the prospect is enlivened by the groves which are seen interspersed like islands, or the solitary tree, which stands alone in the young grass desert.

If it be in the spring of the year, and the young grass has just covered the ground with a carpet of delicate green, and especially if the sun is

not rising from behind a distant swell of the plain and glittering upon the dew-drops, no scene can be more lovely to the eye. The deer is seen grazing quietly upon the plain; the bee is on the wing; the wolf with his tail dropped is sneaking away to his covert with the felon tread of one who is conscious that he has disturbed the peace of nature; and the grouse feeding in flocks or in pairs, like the domestic fowl, cover the whole surface—the males strutting and erecting their plumage like a peacock, and uttering a long, loud, mournful note, something like the cooing of the dove, but resembling still more the sound produced by passing a rough finger boldly over the surface of a tambourine. The number of these birds is astonishing. The plain is covered with them in every direction; and when they have been driven from the ground by a deep snow, I have seen thousands, or more properly tens of thousands, thickly clustered in the tops of the trees surrounding the prairie. They do not retire as the country becomes settled, but continue to lurk in the tall grass around the newly made farms; and I have sometimes seen them mingled with the domestic fowls, a short distance from the farmer's door. They will eat and even thrive when confined in a coop, and may undoubtedly become domesticated.

When the eye roves off from the green plain to the groves or points of timber, these also are found to be at this season robed in the most attractive hues. The rich undergrowth is in full bloom. The red-bud, the dog-wood, the crab-apple, the wild plumb, the cherry, the rose, are abundant in all rich lands; and the grape vine, though its bloom is unseen, fills the air with fragrance. The variety of the wild fruit and flowering shrubs is so great, and such the profusion of the blossoms with which they are bowed down, that the eye is regaled almost to satiety.

The gayety of the prairie, its embellishments, and the absence of the gloom and savage wildness of the forest, all contribute to dispel the feeling of lonesomeness, which usually creeps over the mind of the solitary traveler in the wilderness. Though he may not see a house nor a human being, and is conscious that he is far from the habitations of men, he can scarcely divest himself of the idea that he is traveling through scenes embellished by the hand of art. The flowers, so fragile, so delicate, and so ornamental, seem to have been tastefully disposed to adorn the scene. The groves and clumps of trees appear to have been scattered over the lawn to beautify the landscape, and it is not easy to avoid that decision of the fancy which persuades the beholder, that such scenery has been created to satisfy the refined taste of civilized man. Europeans are often reminded of the resemblance of this scenery to that of the extensive parks of noblemen, which they have been accustomed to admire in the old world; the lawn, the avenue, the grove, the copse, which are there produced by art, are here prepared by nature; a splendid specimen of massy architecture, and the distant view of villages, are also wanting to render the similitude complete.

In the summer the prairie is covered with long coarse grass, which soon assumes a golden hue, and waves in the wind like a ripe harvest. Those who have not a personal knowledge of the subject would be deceived by the accounts published of the height of the grass. It is sel-

dom so tall as travelers have represented, nor does it attain its highest growth in the richest soil. In the low wet prairies, where the substratum of clay lies near the surface, the centre or main stem of this grass, which bears the seed, acquires a great thickness, and shoots up to the height of eight or nine feet, throwing out a few short coarse leaves or blades, and the traveler often finds it higher than his head as he rides through it on horse-back. The plants, although numerous, and standing close together, appear to grow singly and unconnected, the whole force of the vegetative power expanding itself upward. But in the rich undulating prairies, the grass is finer, with less of stalk, and a greater profusion of leaves. The roots spread and interweave so as to form a compact, even sod, and the blades expand into a close thick sward, which is seldom more than eighteen inches high, and often less, until late in the season, when the seed-bearing stem shoots up.

The first coat of grass is mingled with small flowers; the violet, the bloom of the strawberry, and others of the most minute and delicate texture. As the grass increases in size these disappear, and others, taller and more gaudy, display their brilliant colors upon the green surface, and still later a larger and coarser succession rises with the rising tide of verdure. A fanciful writer asserts, that the prevalent color of the prairie flowers is in the spring a bluish purple, in midsummer red, and in the autumn yellow. This is one of the *notions* the people get who study nature by the fireside. The truth is, that the whole of the surface of these beautiful plains is clad throughout the season of verdure with every imaginable variety of color, "from grave to gay." It is impossible to conceive a more infinite diversity, or a richer profusion of hues, or to detect any predominating tint, except the green, which forms the beautiful ground, and relieves the exquisite brilliancy of all the others. The only changes of color observed at different seasons arise from the circumstance that in the spring the flowers are small and the colors delicate; as the heat becomes more ardent a hardier race appears, the flowers attain a greater size, and the hue deepens; and still later a succession of coarser plants rise above the tall grass, throwing out larger and gaudier flowers. As the season advances from spring to midsummer, the individual flower becomes less beautiful when closely inspected, but the landscape is far more variegated, rich, and glowing.

In the winter the prairies present a gloomy and desolate scene. The fire has passed over them, and consumed every vegetable substance, leaving the soil bare, and the surface perfectly black. That gracefully waving outline which was so attractive to the eye when clad in green, is now disrobed of all its ornaments; its fragrance, its notes of joy, and the graces of its landscape have all vanished, and the bosom of the cold earth, scorched and discolored, is alone visible. The wind sighs mournfully over the black plain; but there is no object to be moved by its influence—not a tree to wave its long arms in the blast, nor a reed to bend its fragile stem—not a leaf or even a blade of grass to tremble in the breeze. There is nothing to be seen but the cold dead earth and the bare mound, which move not—and the traveler, with a singular sensation, almost of awe, feels the blast rushing over him, while not an object

visible to the eye is seen to stir. Accustomed as the mind is to associate with the action of the wind its operation upon surrounding objects, and to see nature bowing and trembling, and the fragments of matter mounting upon the wind as the storm passes, there is a novel effect produced on the mind of one who feels the current of air rolling heavily over him, while nothing moves around.*

There are districts both in South America and in Asia, the pampas and the steppes, to which the prairies have been compared, but perhaps without sufficient reason. In Europe we are not aware that any part of the surface assumes the form and exhibits the same phenomena.

Some hold, that the whole of the vast region over which they extend, was once submerged, and there is much to be said in support of this theory. They appear, however, under various forms, and from observation, we should divide them into three great divisions: "the oak-openings," the rich level or rolling prairie, interspersed with belts and points of timber, and the vast sterile prairies of the far West.

And first, the "oak-openings," so termed from their distinctive feature of the varieties of oak which are seen scattered over them, interspersed at times with pine, black-walnut, and other forest-trees, which spring from a rich vegetable soil, generally adapted to the purpose of agriculture. The surface is ordinarily dry and rolling. The trees are of medium growth, and rise from a grassy turf seldom encumbered with brushwood, but not unfrequently broken by jungles of rich and gaudy flowering plants and dwarf sumach. Among the "oak-openings," you find some of the most lovely landscape of the West, and travel for miles through varied park scenery of natural growth, with all the diversity of gently swelling hill and dale—here, trees grouped, or standing single—and there, arranged in long avenues, as though by human hands, with slips of open meadow between. Sometimes, the openings are interspersed with numerous clear lakes, and with this addition become enchantingly beautiful. But few of these reservoirs have any apparent inlet. They are fed by subterraneous springs or the rains, and lose their surplus waters by evaporation. Many lie in singularly formed hollows, reflecting in their clear bosoms the varied scenery of the swelling banks, and the alternation of wood and meadow. Michigan and Illinois abound with these "oak-openings." Beyond the Mississippi they also occur; but there they hardly form a distinct feature, while on this side they would appear to form a transition from the dense American forest to the wider "rolling prairie," which further west ordinarily bounds the thick forest without any such character of country intervening.

The rich "rolling prairie," which would form the second division, presents other features, and in a great degree another vegetation. These prairies abound with the thickest and most luxuriant belts of forest, or as they are called "timbers;" appearing interspersed over the open face of the country in bands or patches of every possible form and size; sometimes checkering the landscape at short intervals, and at other times miles and miles apart. They present wide and slightly undulating

* Western Monthly Magazine.

tracks of the rankest herbage and flowers—many ridges and hollows filled with purple thistles—ponds covered with aquatic plants; and in Missouri, it is observed that these “rolling prairies” occupied the higher portions of the country, the descent to the forest bottoms being invariably over steep and stony declivities. The depth and richness of the soil on these lands are almost incredible, and the edges of the bands of forest are consequently a favorite haunt of the emigrant settler and backwoodsman. The game is usually abundant. Over this class of prairie the fire commonly passes in autumn, and to this cause alone the open state of the country is ascribed by many, as, whenever a few years elapse without the conflagration touching a district, the thick-sown seeds of the slumbering forest, with which the rich vegetable mould seems to be laden, spring up from the green sod of the country. The surface is first covered with brushwood composed of sumach, hazel, wild-cherry, and oak; and if the fire be kept still out, other forest-trees follow.

From those we pass to the vast boundless prairies of the far West—such as those beyond Fort Gibson, unbroken, save by the forest rising on the alluvium of some river shore below their level, or by the skirts of knotted and harsh oak-wood of stunted growth—thick without luxuriance, such as the Cross Timbers of disagreeable memory. These prairies seem to occupy the highest parts of the table-land toward the courses of the great rivers and their tributaries. Here the soil is poor in the extreme, and charged with iron and salt; the water is scarce and bad, and the grass is luxuriant. They abound with abrupt and peculiarly-shaped flinty hills, swelling up from the general level—great salt plains—rock salt—and occasionally with isolated rocks rising from the surface, with steep perpendicular sides, as though cut by the hand of man, standing alone in the midst of the desert, a wonder to the Indian and the trapper.

The outline of these prairies is grand and majestic in the extreme. They are rarely perfectly level. As you advance, one immense sea of grass swells the horizon after another, unbroken for leagues by rock or tree. They are the home of the bison, and the hunting-ground of the unfettered Indian of the North and West.

At the period when the Europeans began to make settlements in North America, the bison was occasionally found on the Atlantic coast; but even then it appears to have been rare to the eastward of the Appalachian mountains. Theodat, whose history of Canada was published in 1636, merely says that he was informed that bulls existed in the remote western countries. Warden mentions, that at no very distant date, herds of them existed in the western parts of Pennsylvania, and that as late as the year 1766 they were pretty numerous in Kentucky; but they have gradually retired before the white population, and are now, he says, rarely seen south of the Ohio, or on the east side of the Mississippi. They still exist, however, in vast numbers, and roam in countless herds over the prairies that are watered by the Arkansas, La Platte, Missouri, and upper branches of the Saskatchewan and Peace rivers. Great Slave Lake, in latitude 60°, was at one time the northern boundary of their range; but of late years, according to the testimony of the natives they

have taken possession of the flat limestone districts of Slave Point, on the north side of that lake, and have wandered to the vicinity of Great Marten Lake, in latitude 63° or 64° . As far as we have been able to ascertain, the limestone and sandstone formations lying between the great Rocky Mountain ridge and the lower eastern chain of primitive rocks, are the only districts in the fur-countries that are frequented by the bison.

In these comparatively level tracts there is much prairie land, on which they find good grass in summer; and, also, many marshes overgrown with bulrushes and *oarices*, which supply them with winter food. Salt springs and lakes also abound on the confines of the limestone, and there are several well-known *salt-licks*, where bison are sure to be found at all seasons of the year. They do not frequent any of the districts formed of primitive rocks. Their migration to the westward were formerly limited by the Rocky Mountain range, and they are still unknown in New Caledonia, and on the shores of the Pacific to the north of the Columbia River; but of late years they have found a passage across the mountains near the sources of the Saskatchewan, and their numbers to the westward are said to be annually increasing. In 1806, when Lewis and Clark crossed the mountains at the head of the Missouri, bison skins were an important article of traffic between the inhabitants on the east side and the natives to the westward. Further to the southward, in New Mexico and California, the bison appear to be numerous on both sides of the Rocky Mountain chain.

The bison wander constantly from place to place, either from being disturbed by hunters, or in quest of food. They are much attracted by the soft tender grass which springs up after a fire has spread over the prairie. In winter they scrape away the snow with their feet, to reach the grass. The bulls and cows live in separate herds for the greater part of the year; but at all seasons one or two bulls generally accompany a large herd of cows. The bison is in general a shy animal, and takes to flight instantly on scenting an enemy, which the acuteness of its sense of smell enables it to do from a great distance. They are less wary when they are assembled together in numbers, and will then often blindly follow their leaders, regardless of, or trampling down the hunters posted in their way. It is dangerous for the hunter to show himself after having wounded one, for it will pursue him, and although its gait may be heavy and awkward, it will have no difficulty in overtaking the fleetest runner.

Many instances might be mentioned of the tenaciousness with which this animal pursues his revenge; and we have been told of a hunter having been detained for many hours in a tree by an old bull, which had taken his post below to watch him. When it contends with a dog, it strikes violently with its fore-feet, and in that way proves more than a match for an English bull-dog. The favorite Indian method of killing the bison, is by riding up to the fattest of the herd on horseback, and shooting it with an arrow. When a large party of hunters are engaged in this way, the spectacle is very imposing, and the young men have many opportunities of displaying their skill and agility. The horses

appear to enjoy the sport as much as their riders, and are very active in eluding the shock of the animal should it turn on its pursuer. The most generally practiced plan, however, of shooting the bison, is by crawling towards them from the leeward; and in favorable places, great number are taken in pounds. When the bison runs, it leans very much first to one side for a short space of time, and then to the other, and so on alternately.

The flesh of the bison, in good condition, is very juicy and well flavored, much resembling that of well-fed beef. The tongue is considered a delicacy, and may be cured so as to surpass in flavor the tongue of an English cow. The hump of flesh covering the long spinous processes of the first dorsal vertebrae is much esteemed. It is named *bos* by the Canadian voyagers, and *wig* by the Orkney men in the service of the Hudson's Bay Company. The wig has a fine grain, and when salted and cut transversely, it is almost as rich and tender as the tongue. The fine wool which clothes the bison renders its skin, when properly dressed, an excellent blanket. The wool has been manufactured in England into a remarkably fine and beautiful cloth, and in the colony of Osnaboyna, on the Red River, a warm and durable coarse cloth is made of it. Much of the *pemmican* used by the voyagers attached to the fur-companies, is made of bison-meat, procured at their posts on the Red River and Saskatchewan. One bison cow in good condition furnishes good meat and fat enough to make a bag of pemmican weighing 109 pounds. The bisons which frequent the woody parts of the country form smaller herds than those which roam over the plains, but are said to be individually of a greater size.

The herds of bisons wander over the country in search of food, usually led by a bull most remarkable for strength and fierceness. While feeding, they are often scattered over a great extent of country, but when they move in mass, they form a dense and almost impenetrable column, which, once in motion, is scarcely to be impeded. Their line of march is seldom interrupted, even by considerable rivers, across which they swim without fear or hesitation, nearly in the order that they traverse the plains. When flying before their pursuers, it would be in vain for the foremost to halt, or to attempt to obstruct the progress of the main body, as the throng in the rear, still rushing onward, the leaders must advance, although destruction awaits the movement. The Indians take advantage of this circumstance to destroy great quantities of this favorite game; and certainly no mode could be resorted to more effectually destructive, nor could a more terrible devastation be procured, than that of forcing a numerous herd of these large animals to leap together from the brink of a dreadful precipice, upon a rocky and unbroken surface, a hundred feet below.

When the Indians determine to destroy bisons in this way, one of their swiftest-footed and most active young men is selected, who is disguised in a bison skin, having the head, ears, and horns adjusted on his own head, so as to make the deception very complete, and thus accoutred, he stations himself between the bison herd and some of the precipices, which often extend for several miles along the river. The Indians

surround the herd as nearly as possible, when, at a given signal, they show themselves, and rush forward with loud yells. The animals being alarmed, and seeing no way open but in the direction of the disguised Indian, run towards him, and he, taking to flight, dashes on to the precipice, where he suddenly secures himself in some previously ascertained crevice. The foremost of the herd arrives at the brink; there is no possibility of retreat, no chance of escape; the foremost may for an instant shrink with terror, but the crowd behind, who are terrified by the approaching hunters, rush forward with increasing impetuosity, and the aggregated force hurls them successively into the gulf, where certain death awaits them.

These animals have been seen in herds of three, four, and five thousand, blackening the plain as far as eye could view. At night, it is impossible for persons to sleep near them who are unaccustomed to their noise, which, from the incessant lowing and roaring of the bulls, is said to resemble distant thunder. Although frequent battles take place between the bulls, as among domestic cattle, the habits of the bison are peaceful and inoffensive, seldom or never offering to attack man or other animals, unless outraged in the first instance.

The following vivid description of a buffalo-hunt, is from Washington Irving's tour on the prairies. Mr. Irving remarks:

"Having made two or three ineffectual shots from horseback, we determined not to seek the camp until we had made one more effort. Casting our eyes about the surrounding waste, we descried a herd of buffalo about two miles distant, scattered apart, and quietly grazing near a small strip of trees and bushes. It required but little stretch of fancy to picture them so many cattle grazing on the edge of a common, and that the grove might shelter some lowly farm-house.

"We now formed our plan to circumvent the herd, and by getting on the other side of them, to hunt them in the direction where we knew our camp to be situated; otherwise, the pursuit might take us to such a distance as to render it impossible for us to find our way back before night-fall. Taking a wide circuit, therefore, we moved slowly and cautiously, pausing occasionally, when we saw any of the herd desist from grazing. The wind fortunately set from them, otherwise they might have scented us and have taken the alarm. In this way, we succeeded in getting round the herd without disturbing it. It consisted of about forty head, bulls, cows and calves. Separating to some distance from each other, we now approached slowly in a parallel line, hoping by degrees to steal near without exciting attention. They began, however, to move off quietly, stopping at every step or two to graze, when suddenly a bull that, unobserved by us, had been taking his siesta under a clump of trees to our left, roused himself from his lair, and hastened to join his companions. We were still at a considerable distance, but the game had taken the alarm. We quickened our pace, they broke into a gallop, and now commenced a full chase.

"As the ground was level, they shouldered along with great speed, following each other in a line; two or three bulls bringing up the rear, the last of whom, from his enormous size and venerable frontlet, and

beard of sunburnt hair, looked like the patriarch of the herd, and as if he might long have reigned the monarch of the prairie.

"There is a mixture of the awful and the comic in the look of these huge animals, as they bear their great bulk forward, with an up-and-down motion of the unwieldy head and shoulders; their tail cocked up like the queue of Pantaloon in a pantomime, the end whisking about in a fierce yet whimsical style, and their eyes glaring venomously with an expression of fright and fury.

"For sometime I kept parallel with the line, without being able to force my horse within pistol-shot, so much had he been alarmed by the assault of the buffalo, in the preceding chase. At length I succeeded, but was again balked by my pistols missing fire. My companions, whose horses were less fleet, and more wayworn, could not overtake the herd; at length, Mr. L., who was in the rear of the line, and losing ground, leveled his double-barreled gun, and fired a long raking shot. It struck a buffalo just above the loins, broke its backbone, and brought it to the ground. He stopped and alighted to dispatch his prey, when, borrowing his gun which had yet a charge remaining in it, I put my horse to his speed, again overtook the herd which was thundering along, pursued by the count. With my present weapon there was no need of urging my horse to such close quarters; galloping along parallel, therefore, I singled out a buffalo, and by a fortunate shot brought it down on the spot. The ball had struck a vital part; it would not move from the place where it fell, but lay there struggling in mortal agony, while the rest of the herd kept on their headlong career across the prairie.

"Dismounting, I now fettered my horse to prevent his straying, and advanced to contemplate my victim. I am nothing of a sportsman: I had been prompted to this unwonted exploit by the magnitude of the game, and the excitement of an adventurous chase. Now that the excitement was over, I could not but look with commiseration upon the poor animal that lay struggling and bleeding at my feet. His very size and importance, which had before inspired me with eagerness, now increased my compunction. It seemed as if I had inflicted pain in proportion to the bulk of my victim, and as if there were a hundred fold greater waste of life than there would have been in the destruction of an animal of inferior size.

"To add to these after-qualms of conscience, the poor animal lingered in his agony. He had evidently received a mortal wound, but death might be long in coming. It would not do to leave him here to be torn piecemeal, while yet alive, by the wolves that had already snuffed his blood, and were skulking and howling at a distance, and waiting for my departure, and by the ravens that were flapping about, croaking dismally in the air. It became now an act of mercy to give him his quietus, and put him out of his misery. I primed one of the pistols, therefore, and advanced close up to the buffalo. To inflict a wound thus in cool blood, I found a totally different thing from firing in the heat of the chase. Taking aim, however, just behind the fore-shoulder, my pistol for once proved true; the ball must have passed through the heart, for the animal gave one convulsive throe and expired.

"While I stood meditating and moralizing over the wreck I had so wantonly produced, with my horse grazing near me, I was rejoined by my fellow-sportsman, the virtuoso; who, being a man of universal adroitness, and withal, more experienced and hardened in the gentle art of 'venerie,' soon managed to carve out the tongue of the buffalo, and delivered it to me to bear back to the camp as a trophy."

Immensely variegated as is the surface of the globe, there are still but few of its features that present an aspect of more surpassing interest and beauty than the far-lengthening, wide-expanding prairie. The oceans, the mountains, the hills, the valleys, the torrents and rivers, afford thousands of most admirable scenes, but the face of a prairie smiles with surpassing charms, with indescribable loveliness.

"Lo! they stretch

In airy undulations, far away,
As if an ocean in its gentlest swell
Stood still, with all its rounded billows fixed
And motionless for ever. Motionless?
No, they are all unchained again. The clouds
Sweep over with their shadows, and beneath,
The surface rolls and fluctuates to the eye;
Dark hollows seem to glide along and chase
The sunny ridges. Breezes of the South!
Who toss the golden and the flame-like flowers,
And pass the prairie-hawk, that, poised on high,
Flaps his broad wings, yet moves not—ye have played
Among the palms of Mexico, and vines
Of Texas, and have crisped the limpid brooks
That from the fountains of Sonora glide
Into the calm Pacific—have ye fanned
A nobler or a lovelier scene than this?
Man hath no part in all this glorious work:
The hand that built the firmament hath heaved
And smoothed these verdant swells, and sown their hopes
With herbage, planted them with island groves
And hedged them round with forests. Fitting floor
For this magnificent temple of the sky—
With flowers whose glory and whose multitude
Rival the constellations! The great heavens
Seem to stoop down upon the scene in love—
A nearer vault, and of a tender hue,
Than that which bends above the eastern hills."

Stretching far away with indistinct boundaries, or merging into the horizon, the southern prairie appears like a vast sea; its undulations, the seeming swells, its clumps of trees, the islands. Whether the tall luxuriant grass, mingled with an innumerable variety of flowers loaded with perfume, waves upon its surface, or is shorn close like a pasture, it always exhibits the aspect of unequalled fertility and beauty,

"And the heart swells, while the dilated sight
Takes in the encircling vastness."

The rich clumps of fine trees, collected together here and there in every possible form, and of every species, and some of them planted

with the nice regularity of art, add the charm of variety to the lovely scene, while they afford a grateful shelter to the wandering herds and the weary hunter.

It is a rapturous vision to gaze upon these "gardens of the desert;" but how few ever enjoy the luxury! Few countries are adorned with the beautiful scenes, and none more bountifully than America. In no portions of America do they exhibit more beautiful or more varied aspects than in Mexico and Texas. The prairies of Texas, especially, are as wonderful in their vast extent, as they are peculiar in beauty and singular in fertility. The adventurous colonist attracted by the paradisiacal scene, who is, perhaps, the first

"— of that advancing multitude,
Which soon shall fill these deserts,"

finds himself not in this great solitude alone. It is thickly peopled with myriads of gaudy insects that flutter over the flowers, beautiful birds, graceful deer, bounding buffaloes, and numerous troops of fine and noble wild horses. The settler selects his spot, builds himself a dwelling in a shady island, and by conforming to certain requisitions of the government, becomes at once the rightful proprietor of nearly as much territory as his eye can at once survey, and when he finds time to enclose it with substantial landmarks, he feels secure against intrusion. He plants his sugar and his cotton, and whatever else he may choose to cultivate, and the benignant climate and prolific soil shortly yield him the most abundant crop, and he reaps more than a hundred fold. The soil is easily subdued, and with little care whole herds of cattle grow up to enliven the wide domain, where they roam throughout the year without barns and without the northern haystacks or granaries. If he wishes a horse or a drove of horses to ride, to travel, to hunt, to work, he has only to ride into the prairie, and the animals cost him only the trouble of catching them. The horses of Texas are small, run wild in numerous droves over the prairies, and are easily taken and rendered serviceable. They were probably originally introduced by the Spaniards, and are called *mustangs*.

The pursuer provides himself with a strong noosed cord, made of twisted strips of green hide, which, thus prepared, is called a *lazo*, the Spanish word for a band or bond. He mounts a fleet horse, and fastens one end of his lazo to the animal, coils it in his left hand, leaving the extended noose to flourish in the air over his head. Selecting his game, he gives it chase; and as soon as he approaches the animal he intends to seize, he takes the first opportunity to whirl the *lazo* over his head, and immediately checks his own charger. The noose instantly contracts around the neck of the fugitive mustang, and the creature is thrown violently down, sometimes unable to move, and generally, for the moment, deprived of breath. This violent method of arrest frequently injures the poor animal, and sometimes even kills him. If he escapes, however, with his life, he becomes of great service to his master, always remembering with great respect the rude instrument of his capture, and ever afterwards yielding immediately whenever he feels the *lazo* upon his neck.

Being thus secured, the lazoed horse is blind-folded; terrible lever,

jaw-breaking bits are put into his mouth, and he is mounted by a rider armed with most barbarous spurs. If the animal runs, he is spurred on to the top of his speed, until he tumbles down with exhaustion. Then he is turned about and spurred back again; and if he is found able to run back to the point whence he started, he is credited with having bottom enough to make a good horse; otherwise he is turned off as of little or no value. This process of breaking mustangs to the bridle is a brutal one, and the poor animals often carry the evidence of it as long as they live. After service during the day, they are hopped by fastening their fore legs together with a cord, and turned out to feed. To fasten them to one spot in the midst of a prairie, where neither tree, nor shrub, nor rock is to be found, is quite a problem. But that is accomplished by putting on a halter, tying a knot at the end, digging a hole about a foot deep in the earth; thrusting in the knot, and pressing the earth down around it. As the horse generally pulls nearly in a horizontal direction, he is unable to draw it out.

The mustangs are small, generally about thirteen hands high, strong, well-formed, and of various colors. They have a most malicious expression, and are very crafty and mischievous. When a number are caught, they are generally driven to market, where they are purchased for three or four dollars, branded, hopped, and then turned out and abandoned to themselves until needed. At some future time they will doubtless become a valuable article of export.

The following interesting account of the burrowing-owl is abridged from the splendid continuation of Wilson's "American Birds," by Charles Lucien Bonaparte:

"Venerable ruins, crumbling under the influence of time and vicissitudes of season, are habitually associated with our recollections of the owl; or he is considered as the tenant of sombre forests, whose nocturnal gloom is rendered deeper and more awful by the harsh dissonance of his voice. In poetry, he has long been regarded as the appropriate concomitant of darkness and horror. But we are now to make the reader acquainted with an owl to which none of these associations can belong; a bird that so far from seeking refuge in the ruined habitations of man, fixes its residence within the earth; and instead of concealing itself in solitary recesses of the forest, delights to dwell on open plains, in company with animals remarkable for their social disposition, neatness and order. Instead of sailing heavily forth in the obscurity of the evening or morning twilight, and then retreating to mope away the intervening hours, our owl enjoys the broadest glare of the noon-tide sun, and flying rapidly along, searches for food or pleasure during the cheerful light of day.

"In the trans-Mississippian territories the burrowing-owl resides exclusively in the villages of the marmot or prairie dog, whose excavations are so commodious as to render it unnecessary that our bird should dig for himself, as he is said to do in other parts of the world, where no burrowing animals exist. These villages are very numerous, and variable in their extent, sometimes covering only a few acres, and at others spreading over the surface of the country for miles together. They are com-

posed of slightly-elevated mounds, having the form of a truncated cone, about two feet in width at the base, and seldom rising as high as eighteen inches above the surface of the soil. The entrance is placed either at the top or on the side, and the whole mound is beaten down externally, especially at the summit, resembling a much-used footpath.

"From the entrance, the passage into the mound descends vertically for one or two feet, and is thence continued obliquely downwards, until it terminates in an apartment, within which the industrious marmot contracts, on the approach of the cold season, the comfortable cell for his winter's sleep. This cell, which is composed of fine dry grass, is globular in form, with an opening at top capable of admitting the finger; and the whole is so firmly compacted, that it might, without injury, be rolled over the floor.

"It is delightful, during fine weather, to see these lively little creatures sporting about the entrance of their burrows, which are always kept in the neatest repair, and are often inhabited by several individuals. When alarmed, they immediately take refuge in their subterranean chambers; or if the dreaded danger be not immediately impending, they stand near the brink of the entrance, bravely barking and flourishing their tails, or else sit erect to reconnoitre the movements of the enemy.

"In all the prairie-dog villages, the burrowing-owl is seen moving briskly about, or else in small flocks scattered among the mounds, and at a distance it may be mistaken for the marmot itself when sitting erect. They manifest but little timidity, and allow themselves to be approached sufficiently close for shooting; but if alarmed, some or all of them soar away and settle down again at a short distance; if further disturbed, their flight is continued until they are no longer in view, or they descend into their dwellings, whence they are difficult to dislodge.

"The burrows into which these owls have been seen to descend, on the plains of the river Platte, where they are most numerous, were evidently excavated by the marmot, whence it has been inferred by Say, that they were either common, though unfriendly residents of the same habitation, or that our owl was the sole occupant of a burrow acquired by the right of conquest. The evidence of this was clearly presented by the ruinous condition of the burrows tenanted by the owl, which were frequently caved in, and their sides channeled by the rains, while the neat and well-preserved mansion of the marmot showed the active care of a skillful and industrious owner. We have no evidence that the owl and marmot habitually resort to one burrow; yet we are well assured by Pike and others, that a common danger often drives them into the same excavation, where lizards and rattlesnakes also enter for concealment and safety. The owl observed by Viellot, in St. Domingo, digs itself a burrow two feet in depth, at the bottom of which its eggs are deposited on a bed of moss, herb-stalks, and dried roots.

"The note of our bird is strikingly similar to the cry of the marmot, which sounds like *cheh, cheh*, pronounced several times in rapid succession; and were it not that the burrowing-owls of the West Indies, where no marmots exist, utter the same sound, it might be inferred that the marmot was the unintentional tutor to the young owl; this cry is only

uttered as the bird begins its flight. The food of the bird we are describing appears to consist entirely of insects, as, on examination of its stomach, nothing but parts of their hard wing-cases were found.

"The dogs are about the size of full-grown rats, and they have a queer, shrill bark, which (if such a thing may be imagined) forms a sort of medium between the yelp of a cur and the squeal of a rat. They are generally white or gray, and we saw not one of a darker color. The towns sometimes spread over a distance of several hundred square yards in circumference, spangling the darker green of the prairie in a manner that would doubtless be exceedingly picturesque could it be viewed from a balloon. The little creatures are exceedingly difficult either to catch or kill, and it is very seldom that travelers attempt one or the other; for, upon the approach of intruders, those out on the grass instantly rush to their holes, and those under the ground pop out their heads to see what is the matter. If one is shot, it tumbles back immediately into the hole, and there is no getting at it, but there is never any telling whether a shot takes effect or not; for whether shot or not, the creatures disappear instantly. On one occasion, however, we hit an impudent little fellow which sat barking at us with its nose above the mound and broke its back. The poor dog was knocked out of its hole, and the disabled creature wriggled and struggled pitifully in the grass. This was the only opportunity we had to observe the little animal closely, for during our whole travel we were never at any time successful in a single shot, though we fired at the mounds repeatedly, both with pistols and rifles, as we rode along.

"Those who have been compelled by necessity to eat the creature, say that the meat is extremely tough and unpalatable. Two men whom we met returning home disheartened, told us they were preserved from utter starvation by a lucky shot at a dog, which, with a little flour, was their only sustenance for nearly three days. When coming near a dog-town, your ears are assailed with a vociferous barking from the whole community—which gradually ceases as you advance, until, as you pass over the spot, the little animals all disappear, and the singular sound is no more heard. Dozens of them will be sometimes peeping and barking above the mounds, and at the report of a rifle they are gone like magic into the earth, and scarcely a sign of them remains. You may poke the full length of a walking-stick into one of their holes and not find a bottom to the subterranean habitation."

A writer in the *Army and Navy Chronicle* thus describes a visit to an Indian village:

"About one o'clock on the evening of the eighth of June, the bright waters of the Platte river could be seen in the distance, rolling on in the direction of the mighty Missouri. A march of ten miles brought us to its banks, near which the command halted for the night. We had hardly pitched our tents, when several Indians were seen galloping toward us. The arrival of several *Ottoo* chiefs announced our proximity to their village, from which we were distant about ten miles. They had been previously advised of our approach, and had come out, as a delegation of their tribe, to meet us and bid us welcome to their village. Upon signi-

fyng to us their intention of camping with us for the night, and a company the command on the morrow, they were invited to seat themselves and partake of our fare. This invitation was accepted with little unnecessary ceremony, and indeed it might be, for it is doubtful whether either of our guests had tasted fish, flesh, or fowl, for a month previous. For some length of time, beef, bread, and coffee disappeared from before them, as if by magic. The repast having been finished, they now betook themselves to their pipes and canne co-nick, and after exhausting all topics of conversation, they quietly rolled themselves in their blankets to dream of the morrow.

"At nine o'clock on the morning of the ninth, we took up our line of march for the Ottoo village. We had not proceeded more than five miles, before we were literally surrounded by Indians; some dressed from head to foot in all the gaudy colors of the rainbow; while others could boast of nothing but a small piece of cloth or strouding about the loins. The deficiency of clothing, however, was generally made up in red paint, with which they were completely covered, giving them much the appearance of men destitute of their skins. Many of their horses had evidently been decorated for the occasion, some with eagles' feathers tied to their tails, foretop and mane, with a scalp hanging from the bits of the bridle, and their bodies fantastically colored with various kinds of paint.

"As soon as the command came in sight of the village, the male Indians, old and young, were seen rushing out to meet us. Those who could raise a horse of any description were mounted; while those who could not, hastened toward us on foot. On passing their village the confusion became general: the tops of their dirt-houses were literally covered with women and children, while a thousand meagre, half-starved dogs kept up an incessant yell below. Two miles west of the village we encamped.

"The Ottoo village is situated about one mile from the right bank of the Platte river, upon a beautiful bluff or second bank. It commands a full view of the surrounding country, and the river, with its hundreds of islands, covered with cottonwood and willow. The Elk-Horn, a large stream falling into the Platte, near its junction with the Missouri, can also be seen stretching off to the northwest, its banks studded with timber, until the dark green line which marked its course was lost in the distance. Much military skill is displayed, both in the location and internal arrangement of this village, the credit of which belonged to the chief of the Ottos, Jutan.

"Their lodges are built in a conical form, both in and above the ground; the ground appears, in the first instance, to have been excavated to the depth of from two to three feet. The roofs are supported by several sticks of timber, which are forked at the top; these are from ten to fifteen feet long, and so arranged as to form a circle. Upon the forks of these timbers other timbers are arranged along poles, one end resting upon the ground, and the others coming together at the top, forming a conical frame-work. Upon this frame-work a netting of willows, bound together by strips of bark, is placed. Over the whole, dry grass is thrown, to prevent the air from falling through. The roof is then cov-

ered with dirt, to the thickness of from two to three feet. These lodges are from fifty to seventy-five feet in diameter. The fire is built in the centre, the smoke escaping through the aperture left for the purpose at the top. Around the fire, mattresses, manufactured from willows or rushes, are placed upon the ground, which serve as apologies for chairs. A camp-kettle or two, together with spoons made of wood or buffalos' horns, complete the furniture of the Ottoo mansion.

"The chief, Jutan, is, at this time, probably the most noted and popular Indian belonging to any tribe under the protection of our government. His stature is somewhat above the ordinary size, and well proportioned. His countenance indicates much good humor, while a peculiar twinkling of the eyes stamps upon him at once his true character—that of the cunning, artful, intriguing warrior. His successive warfares with the neighboring tribes, in former days, bear ample evidence that he is not destitute, either of personal courage, or a knowledge of Indian warfare and its tactics.

"In the fall of 1822, Jutan sustained a severe loss in the death of his favorite among six wives. She was young and beautiful, and accompanied him the year previous to Washington, where she of course attracted much attention, and received many presents, all of which Jutan attributed to her personal charms. At her death he refused to be consoled; and the whole nation was put in mourning, by blacking the upper part of the face of every man, woman and child. After the usual time of howling and crying before interment, she was consigned to the earth. A deep grave was dug upon a prominent hill, a short distance from the village, in which she was deposited, together with every article belonging to her while living, including many articles of great value, which had been presented to her at Washington city. The grave was then filled in the usual manner, after setting several strong posts in it, around which the earth was thrown. This being completed, Jutan ordered three of his best horses to be made fast to the posts, and choked to death, which was accordingly done. One of the horses ~~was~~ intended to convey the deceased favorite to the distant and happy land for which she had departed, while the other two were to convey her goods and chattels."

The following adventure occurred to Audoban in one of his lonely journeys through the wilderness:

"On my return from the Upper Mississippi, I found myself obliged to cross one of the wide prairies, which, in that portion of the United States, vary the appearance of the country. The weather was fine, all around me was as fresh and blooming as if it had just issued from the bosom of nature. My knapsack, my gun, and my dog, were all I had for baggage and company. But, although well moccasined, I moved slowly along, attracted by the brilliancy of the flowers, and the gambols of the fawns around their dams, to all appearance as thoughtless of danger as I felt myself.

"My march was of long duration; I saw the sun sinking beneath the horizon long before I could perceive any appearance of woodland, and nothing in the shape of man had I met with that day. The track which I followed was only an Indian trace, and as darkness overshadowed the

prairie, I felt some desire to reach at least a copse, in which I might lie down to rest. The nighthawks were skimming over and around me, attracted by the buzzing wings of the beetles which form their food; and the distant howling of wolves gave me some hope that I should soon arrive at the skirts of some woodland.

"I did so, and almost at the same instant a fire-light attracting my eye, I moved toward it, full of confidence that it proceeded from the camp of some wandering Indians. I was mistaken;—I discovered by its glare that it was from the hearth of a small log cabin, and that a tall figure passed and repassed before the fire, apparently engaged in household duties. Upon approaching the cabin, I discovered that the tall figure was that of a woman; near the fire was sitting an Indian, and two or three raccoon skins lay at his feet. He moved not; he apparently breathed not. Accustomed to the habits of the Indian, and knowing that they pay little attention to the approach of civilized strangers, (a circumstance which in some countries is considered as evincing the apathy of their character,) I addressed him in French, a language not unfrequently partially known to the people in that neighborhood. He raised his head, pointed to one of his eyes with his finger, and gave me a significant glance with the other. His face was covered with blood. The fact was, that an hour before this, as he was in the act of discharging an arrow at a raccoon in the top of a tree, the arrow had split upon the cord, and sprung back with such violence against his right eye, as to destroy it for ever.

"Feeling hungry, I inquired what sort of fare I might expect. Such a thing as a bed was not to be seen, but many large untanned bear and buffalo hides lay piled in a corner. I drew a fine time-piece from my breast, and told the woman it was late, and that I was fatigued. She had espied my watch, the richness of which seemed to operate upon her feelings with electric quickness. She told me that there was plenty of venison and jerked buffalo meat, and that on removing the ashes I should find a cake. But my watch had struck her fancy, and her curiosity had to be gratified by an immediate sight of it. I took off the gold chain that secured it around my neck, and presented it to her. She was all ecstasy, spoke of its beauty, asked me its value, and put the chain round her brawny neck, saying how happy the possession of such a watch would make her. Thoughtless, and, as I fancied myself, in so retired a spot, secure, I paid little attention to her talk or her movements. I helped my dog to a good supper of venison, and was not long in satisfying the demands of my own appetite.

"The Indian rose from his seat, as if in extreme suffering. He passed and repassed me several times, and once pinched me on the side so violently, that the pain nearly brought forth an exclamation of anger. I looked at him. His eye met mine; but his look was so forbidding, that it struck a chill into the more nervous part of my system. He again seated himself, drew his butcher-knife from its greasy scabbard, examined its edge, as I would do that of a razor suspected dull, replaced it, and again taking his tomahawk from his back, filled the pipe of it with tobacco, and sent me expressive glances whenever our hostess chanced to have her back towards us.

"Never until that moment had my senses been awakened to the danger which I now suspected to be about me. I returned glance for glance to my companion, and rested well assured that, whatever enemies I might have, he was not of that number.

"I asked the woman for my watch, wound it up, and under pretense of wishing to see how the weather might probably be on the morrow, took up my gun, and walked out of the cabin. I slipped a ball into each barrel, scraped the edges of my flints, renewed the primings, and returning to the hut, gave a favorable account of my observations. I took a few bear-skins, made a pallet of them, and calling my faithful dog to my side, lay down, with my gun close to my body, and in a few minutes was, to all appearances, fast asleep.

"A short time had elapsed, when some voices were heard, and from the corner of my eyes I saw two athletic youths making their entrance, bearing a dead stag on a pole. They disposed of their burden, and asking for whisky, helped themselves freely to it. Observing me and the wounded Indian, they asked who I was, and why the devil that rascal (meaning the Indian, who, they knew, understood not of a word English) was in the house. The mother—for so she proved to be—bade them speak less loudly, made mention of my watch, and took them to a corner, where a conversation took place, the purport of which it required little shrewdness in me to guess. I tapped my dog gently. He moved his tail, and with indescribable pleasure I saw his eyes alternately fixed on me and raised towards the trio in the corner. I felt that he perceived danger in my situation. The Indian exchanged a last glance with me.

"The lads had eaten and drunk themselves into such condition, that I already looked upon them as *hors de combat*; and the frequent visits of the whisky-bottle to the ugly mouth of their dam, I hoped would soon reduce her to a like state. Judge of my astonishment, reader, when I saw this incarnate fiend take a large carving-knife, and go to the grindstone to whet its edge. I saw her pour the water on the turning machine, and watched her working away with the dangerous instrument, until the sweat covered every part of my body, in despite of my determination to defend myself to the last. Her task finished, she walked to her reeling sons, and said, 'There, that'll soon settle him! Boys, kill you——, and then for the watch.'

"I turned, cocked my gun-locks silently, touched my faithful companion, and lay ready to start up and shoot the first who might attempt my life. The moment was fast approaching, and that night might have been my last in this world, had not Providence made preparations for my rescue. All was ready. The infernal hag was advancing slowly, probably contemplating the best way of dispatching me, whilst her sons should be engaged with the Indian. I was several times on the eve of rising and shooting her on the spot:—but she was not to be punished thus. The door was suddenly opened, and there entered two stout travelers, each with a long rifle on his shoulder. I bounced upon my feet, and making them most heartily welcome, told them how well it was for me that they should have arrived at that moment. The tale was told in

a minute. The drunken sons were secured, and the woman, in spite of her defense and vociferations, shared the same fate. The Indian fairly danced with joy, and gave us to understand that, as he could not sleep for pain, he would watch over us. You may suppose we slept much less than we talked. The two strangers gave me an account of their once having been themselves in a somewhat similar situation. Day came, fair and rosy, and with it the punishment of our captives.

"They were now quite sobered. Their feet were unbound, but their arms were still securely tied. We marched them into the woods off the road, and having used them as Regulators were wont to use such delinquents, we set fire to the cabin, gave all the skins and implements to the young Indian warrior, and proceeded, well pleased, towards the settlements.

"During upwards of twenty-five years, when my wanderings extended to all parts of our country, this was the only time at which my life was in danger from my fellow-creatures. Indeed, so little risk do travelers run in the United States, that no one born there ever dreams of any to be encountered on the road; and I can only account for this occurrence by supposing that the inhabitants of the cabin were not Americans.

"Will you believe, reader, that not many miles from the place where this adventure happened, and where, fifteen years ago, no habitation belonging to civilized man was expected, and very few ever seen, large roads are now laid out, cultivation has converted the woods into fertile fields, taverns have been erected, and much of what we Americans call comfort is to be met with. So fast does improvement proceed in our abundant and free country."

OREGON AND THE FUR TRADE.

According to documents whose authenticity cannot be controverted, Captain Robert Gray, in the ship *Columbia*, from Boston, sailing under the flag of the United States, entered the mouth of a large river on the western coast of America near the forty-sixth parallel of latitude, on the 7th of May, 1792, which was the first time (no evidence to the contrary being on record) it was seen by a citizen of a civilized nation. Here he anchored, and with a small boat proceeded to the land. He named the river *Columbia*, after the name of the vessel and his country, and named the cape on the north side, *Cape Hancock*, and on the south *Point Adams*. After exploring the channel at the entrance of the harbor, he weighed anchor on the 14th, and proceeded about fifteen miles up the river, where he remained until the morning of the 21st of May, trading with the natives and making observations of the shores on either side. Thus, in 1792, the *Columbia* river was discovered from the sea and named by a citizen of the United States.

In 1803 our government fitted out an expedition to explore the region of the Rocky Mountains west to the *Columbia* river. This expedition

was successful, and opened to the civilized world the vast and fertile region of the Upper Missouri, and the rich plateaus in the vicinity of the Rocky Mountains. This expedition was followed by that of Lewis and Clarke, and a settlement and occupation near the mouth of the Columbia river, by John Jacob Astor, a resident of New York city.

The only people of antiquity that used furs for the purpose of luxury and ornament, were the Persians. They imported considerable quantities from the northern tribes, with whom they held commercial intercourse, and who were compelled, by the severe cold of the region which they inhabited, to clothe themselves almost exclusively in skins and furs. The ordinary and most suitable garments of the Persians were made of linen, cotton, or wool; they used furs chiefly as couches and carpets, and occasionally to decorate their robes. There was a peculiar species of mouse-skin, great numbers of which they used to sew together as lining for garments. The Jews, in accordance with the laws of Moses, attached the idea of uncleanness to skins and furs. The Greeks considered it a mark of rusticity and lack of refinement to wear dresses of this material. The Romans had a peculiar abhorrence for furs.

In the middle ages, furs were used in all parts of Europe, although confined exclusively to the rich and great, on account of the enormous expense by which they only could be procured. The skins of seven hundred and forty-two ermines were contained in a single dress of the King of France, in the thirteenth century. At an earlier period, Charlemagne had worn an otter-skin cloak, and also a fur-coat, trimmed with fox and squirrel skins. The fashion was at its height during the Crusades; and sumptuary laws were enacted, forbidding any person to wear furs without an income of one hundred pounds. In later times, the use of this article in dress was succeeded by that of silk, and it is supposed that plush and velvet were first manufactured in imitation of furs. At the present day, the largest quantities of furs are used by the Poles, Russians, Chinese, Persians, and Turks; in other countries they are chiefly in demand for ladies' muffs, boas, and capes, for military caps, or sometimes for the decorations of fashionable equipages.

That portion of the globe which now constitutes the Russian Empire, was formerly the source whence the fur-market received its supplies: but since the discovery of America, the trade has been almost wholly turned in that direction. The French, from their earliest settlement in Canada, were accustomed to penetrate thousands of miles into the interior of the continent, visiting regions which even now are imperfectly known, and holding commerce with tribes of Indians, whose descendants are still hunting on the same plains. They continued the fur-trade in full vigor until the conquest of Canada. Meanwhile, in 1670, the Hudson's Bay Company had been formed in England, and pursued the traffic in the more northern parts of America. More than a century afterward the Northwest Company was likewise established, and extended their operations over the tract between Lake Winnipeg and the Rocky Mountains. The rivalry of these two companies soon broke out into open enmity, and gave rise to a state of actual war between the parties of traders belonging to each. Skirmishes were fought, fortresses were be-

sieged and taken, and much kindred blood was shed on both sides; and as no law could penetrate so far into the wilderness, the offenders remained unpunished. Peace was finally established, not many years ago, by a junction of the companies. An American association for carrying on the fur-trade, was likewise swallowed up by these two great companies; it had been formed in 1811, by John Jacob Astor and other merchants, and might probably have met with good success, but for the almost immediate occurrence of the war with England.

The European traders depend for their supply of furs upon the Indian hunters, whom they pay chiefly with muskets and ammunition, blankets, and other useful articles, toys, tobacco and rum. They deal, of course, at a most exorbitant profit. The principal furs obtained in America are those of bears, otters, foxes, beavers, wild cats, wolves, and of many smaller animals. The black bear-skins are used for the hammer-cloths of coaches, for sleigh-coverings, for grenadier-caps, and knapsacks; the russet bear-skins for muffs; the silver-gray, white, or polar bear-skins for rugs. The fur of the raccoon is coarse, and is mostly disposed of in Germany and Poland, as is likewise that of the badger, and the wolverine. Minks and marten-skins are employed in muffs and trimmings; the first quality of marten skins sell for more than four dollars apiece. The sea-otter is a beautiful and highly valuable fur, jet-black, with a silken gloss, and frequently intermingled with silvery hairs. Of foxes, the black is the most valuable species found in America; red foxes have not latterly been considered worth purchasing. The skins of Russian foxes are said to be worth their weight in gold. Beaver and muskrat, and hare and rabbit-skins are used by the hatters and in trimmings.

All these furs are exported from America in what is called the raw state, precisely as when they were stripped from the animals, except that they have been dried. In this condition, they are stiff and rigid, and liable to break or tear. On arriving in England, in order to render the skin soft and supple, they are trodden with refuse butter. They are then put into a revolving barrel, having spikes on the insides, by which the superfluous grease is combed from the fur and absorbed by chalk, gypsum or sawdust. The greater part of the furs are then consigned from London to Leipsig, in Saxony, where they are sold at an annual fair, and thence distributed all over the continent of Europe. Thus the Indian hunter, the aboriginal American, despised as he is, has no trifling office to perform, in providing the richest materials for female dress, the proudest robes of potentates and nobles, and the shaggy decorations of disciplined armies.

The following brief history of the *Pacific Fur Company* and the settlement of Astoria, on the Columbia river, is copied from a memoir by Robert Greenhow, and submitted to the twenty-sixth Congress during its first session, by Mr. Linn, chairman of a select committee on the Oregon territory:

"An association, for the prosecution of the fur trade on the northwestern side of the continent, was formed at New York in 1810. This association was called the *Pacific Fur Company*. Its originator was John Jacob Astor, on whose commercial sagacity and efficiency it would be

needless to dilate. He was, in fact, the company; one-half of its share were held, nominally at least, by other persons, but every measure was dictated by him, and carried into effect by means of his capital. His plan was to establish trading-posts on the Columbia and its branches, as well as on the Pacific coast and head-waters of the Missouri, which were to be supplied with the necessary articles, either by way of the latter river, or from a principal factory, to be founded at the mouth of the Columbia, whither all the furs collected at the other places were, at stated periods, to be brought. The principal factory was to receive goods from ships sent out annually from New York, which, having discharged their cargoes at the mouth of the Columbia, were to be reladed with furs for Canton, whence they would carry back to New York teas silks, and other Chinese productions. It was also contemplated that the Russian settlements on the Pacific should be furnished by the company's vessels with such foreign articles as they required, furs being taken in exchange; and, in order to effect this more completely, as well as to prevent the occurrence of difficulties, which might otherwise be anticipated, an agent was dispatched to St. Petersburg, who concluded an arrangement securing to the Pacific company, under certain conditions, the exclusive privilege of trading with the Russian American possessions.

"For the execution of these plans, Mr. Astor engaged as partners in the concern a number of persons, nearly all Scotchmen, who had been long in the service of the Northwest company, together with some Americans and Canadians, who were acquainted with the fur trade. These partners were to conduct the business in the west, under the direction of a general agent, chosen by them for five years; and they were to share among themselves one-half of the profits, the other half being retained by Mr. Astor, who advanced all the funds, and superintended the affairs at New York. The persons required for the inferior offices and employments having been also engaged, the first party quitted New York for the Columbia in September, 1810, in the ship *Tonquin*, commanded by Jonathan Thorne: in January following, the second detachment set out from St. Louis, on its way across the continent, under the direction of Wilson Price Hunt, of New Jersey, who had been appointed general agent by the board of partners. The ship *Enterprise*, Captain Ebbets, had also been sent in 1809 to the North Pacific, to make preparatory researches and inquiries among the Russian settlements, and on the coasts which were to be the scenes of the new company's operations.

"The *Tonquin* arrived at the mouth of the Columbia in March, 1811; and, her goods and passengers having been there landed, she sailed towards the north in search of furs. Before her departure, a spot was chosen on the south bank of the river, eight miles from the ocean, as the site of the principal factory, which, in compliment to the originator of the enterprise, was named *Astoria*. In the course of the ensuing summer, the most essential buildings were erected, gardens were planted, trade was begun with the natives, a small vessel was built and launched, and everything appeared to promise success to the establishment.

"In July a detachment of persons in the service of the Northwest company arrived at Astoria, under the direction of Mr. Thompson, the

astronomer of that association, who had left Montreal in the previous year, with the object of anticipating the new company in occupying the mouth of the Columbia. On their way down, they built huts and hoisted flags, and bestowed names on various spots, by way of *taking possession* as they considered it, of the territory of their sovereign. They, however, arrived too late at the most important point; and were obliged to retrace their course to the northward, having been received and treated with great attention at the factory by their old friends, Messrs. M'Dougall, Mackay, and Stuart, the partners of the Pacific company, then directing its affairs in the west. From the information which has been obtained, it appears to be certain that by this party were established the first British trading-posts on the Columbia; and that they were, indeed, the first white men who ever navigated the northern branch of that river.

"In the course of this summer, also, several trading-posts were established by the Pacific Fur Company in the interior of the country; of which, the principal was one situated at the confluence of a river, called the Okanagan, with the Columbia, about four hundred miles from the mouth of the latter. During the winter which followed, the people of Astoria were subjected to many discomforts, but nothing occurred calculated to lessen their hopes as to the ultimate success of the undertaking.

"Meanwhile, the other party of the Pacific company's men, proceeding from St. Louis, under Mr. Hunt, ascended the Missouri to the country of the Arickara Indians, near the great bend of the river, and thence pursued their journey by land to the Rocky Mountains. After passing this ridge, near the forty-fifth degree of latitude, they descended one of the branches of the Lewis (probably that now called *Salmon river*) to the Columbia, and reached Astoria in the spring of 1812, having undergone innumerable difficulties from cold, fatigue, and want of food. Scarcely had they arrived at the factory, when news was received of the destruction of the ship *Tonquin* and her whole crew, with the exception of the Indian interpreter, at one of the inlets near Nootka sound; the crew were overpowered by the savages, who killed the greater part of them immediately, and the vessel was then blown up by the clerk and others who had taken refuge in the hold. This disaster was calculated to depress the hopes of the persons engaged in the enterprise; their courage, however, appears to have been undiminished, and they pursued their labors diligently, being confident that the company (that is to say, Mr. Astor) could bear much heavier pecuniary losses without injury to its credit.

"In May, 1812, the Astorians were still farther encouraged, by the arrival of the ship *Beaver* from New York, with supplies and reinforcements; and it was determined (unfortunately for the cause, as will afterward appear) that Mr. Hunt should sail in her for the northern coasts and visit the Russian settlements, in order to see what commercial intercourse could be carried on with them. He accordingly took his departure in that vessel in August, leaving the affairs of the factory under the direction of Mr. Duncan M'Dougall, one of the Scotch partners, who had been so long in the service of the Northwest company.

"In January, 1813, the news of the declaration of war by the United

States against Great Britain reached Astoria, where it was brought by persons sent for the purpose from New York; and, in the course of June following, Mr. M'Tavish, one of the partners of the Northwest company, arrived at the factory from Canada, bringing rumors of the approach of a British naval force to take possession of the mouth of the Columbia. These announcements appear to have been received with satisfaction by Mr. M'Dougall and his brother Britons, three of whom (including Ross Cox, the author of *Six Years on the Columbia*) immediately quitted the service of the Pacific company, and entered that of the rival association; while the others almost unanimously agreed to abandon the enterprise, unless they should speedily receive assistance and supplies from New York.

"From New York, however, nothing came. The ship *Lark* had been dispatched by Mr. Astor, with articles and men for Astoria; but she was wrecked near the coast of one of the Sandwich islands, in the latter part of 1813. The government of the United States had also determined, in consequence of Mr. Astor's representations, to send the frigate *Adams* to the north Pacific, for the protection of the infant settlement; but, just as she was about to sail from New York, it became necessary to transfer her crew to Lake Ontario, and the blockade of the American ports by British fleets rendered all farther efforts to convey succors to Astoria unavailing.

"Soon after the partners of the Pacific company had formed the resolution, as above mentioned, to abandon the concern unless they should receive assistance, Mr. Hunt, the chief agent, returned to Astoria in the ship *Albatross*. He had spent the summer of 1812 in visiting the Russian settlements at Sitka, Unalashka, and Kodiak, and had collected a valuable cargo of furs, which were carried to Canton in the *Beaver*. Hunt, however, accompanied that ship no farther than to the Sandwich islands, where he was informed of the war between the United States and Great Britain; and, being anxious to convey the news without delay to Astoria, he chartered the ship *Albatross* of Boston, which was then lying at Wahoo, and proceeded in her to the Columbia. He was at first astounded by the resolution adopted by the other partners, but he was at length induced to concur with them as to its propriety; and, after remaining a few days, he again sailed to the south Pacific, in the *Albatross*, for the purpose of finding some ship to convey the furs, then stored in the factory, to Canton. At Nooahevah (one of the Washington islands, discovered by Ingraham, in 1791) he learned that a British squadron, under Commodore Hillyer, was on its way to the Pacific, in order to occupy the mouth of the Columbia; upon receiving this news, he hastened to the Sandwich islands, and, having there chartered the American brig *Pedlar*, he sailed in her for Astoria, where he arrived on the twenty-eighth of February, 1814.

"The fate of the Pacific company, and of its establishments in Northwestern America, had, however, been decided ere the arrival of the *Pedlar* in the Columbia.

"On the seventh of October a body of men in the service of the Northwest company came down the river to Astoria under the direction

of Messrs. M'Tavish and Stuart. They arrived without either ammunition or provisions, while the people of the factory, who nearly equaled them in number, were well supplied in every respect, and their fortifications and heavy guns would have enabled them to withstand any attacks which might have been anticipated under ordinary circumstances. The newcomers, however, brought information upon which the partners at Astoria could depend, and which proved to be perfectly correct, that a large armed ship, the *Isaac Todd*, had been fitted out at London, by the North-west company, and was on her way to the Columbia, under convoy of a frigate, *with the object of taking and destroying every thing American* in that quarter. Messrs. M'Tavish and Stuart, on communicating this news, to which they added accounts of the complete blockade of the coast of the United States by British squadrons, at the same time proposed to purchase the whole of the establishments, furs, and other property of the Pacific company, in the territory of the Columbia, at prices to be fixed by common consent; they also offered to engage in the service of the North-west company any of the persons attached to the American concern, at the same wages which they were then receiving, and to send back to the United States such as might not choose to be thus employed. To these propositions the partners at Astoria resolved to assent; and an agreement was accordingly signed, between them and the chiefs of the other party, on the sixteenth of the month, by which '*all the establishments, furs, and property*,' above mentioned, were sold to the North-west company for about forty thousand dollars, given in the shape of bills on Montreal.

"The business appears to have been managed, on the side of the Pacific company, almost entirely by Mr. M'Dougall, whose conduct on many occasions, during the transaction, as well as afterward, was such as to induce suspicions that he was actuated by improper motives of self-interest. It is, however, difficult to determine what other course ought to have been pursued by him and the other partners, under existing circumstances. They might, indeed, have held out their stockaded fort against the enemy, or have effected a retreat with their property to some place in the interior; but this would have been to no purpose, while they could expect neither to receive supplies of goods for trading from the United States, nor to send their furs for sale to Canton. Mr. Astor declares that he would have preferred the loss of the place and property, by a fair capture, to a sale which he considered disgraceful; and those who know him well are convinced that he speaks as he feels. But mercantile men are, in general, supposed to consider discretion among their agents as the better part of valor; and M'Dougall may have reasonably considered himself bound to act rather for the interests than for the glory of the Pacific company.

"While the business of the transfer of the furs and merchandise at Astoria was in progress, the British sloop-of-war *Raccoon* entered the Columbia, under the command of Captain Black, who had hastened thither in hope of securing a rich share of plunder by the capture of the fort and magazines of the Pacific company. He found the flag of the United States waving over the factory, which was surrendered immedi-

sely on his appearance, by the chief agent M'Dougall; but the furs and goods which were to reward himself and his crew for their exertions, had become the property of their own fellow-subjects, and were then floating up the river in the barges of the Northwest company. The captain of the Raccoon could, therefore, only lower the flag of the United States, and hoist that of Britain over the factory, the name of which he at the same time, and with *due solemnity*, changed to Fort George. These duties being completed, he took his departure for the south.

"Three months afterward, (that is, on the 28th of February, 1814,) Mr. Hunt arrived at the Columbia in the brig Pedlar, which he had, as already stated, chartered for the purpose of conveying the property of the Pacific company to Canton. He found Mr. M'Dougall in charge of the factory, not, however, as an agent of that company, but as a partner of the Northwest company, into which he had been already admitted; and Hunt had, therefore, merely to close the concerns of the former association in that part of America, and to receive the bills given in payment for its effects. Having done this, he reëmbarked in the Pedlar; and, taking with him three of his former companions in trade, he sailed for the United States, by way of Canton. Of the other persons who had been connected with this enterprise, some engaged in the service of the Northwest company, and some returned across the continent to the United States.

"Such was the termination of the Astorian enterprise, for no attempt has been since made by the Pacific company, or by any of its members, to form a trading establishment on the northwest coast of America. The scheme was most wisely projected, and its failure can scarcely be attributed to any circumstances the occurrence of which might have been anticipated when its execution was begun. That ships might be lost at sea, and that the adventurers might suffer from cold, or hunger, or the attacks of savages—casualties such as those were to be expected, and provision was made against them; but in 1810, when the Tonquin sailed from New York, no one anticipated that before the end of two years the United States would have been at war with the most powerful maritime nation in the world. The war traversed every part of the plan. Communications between the ports of the United States and the Columbia by sea were rendered difficult and uncertain, while those by land were of little advantage, and were liable to interruption by the Northwest company; beside which, the furs could no longer be transported with safety to Canton. Moreover, all the most active and skillful persons in the employment of the Pacific company, except Mr. Hunt, were British subjects, whose feelings of attachment for their native land and its cause naturally rendered them discontented, when they were thus placed, in a manner, conspicuously among the ranks of its enemies. If Mr. Astor may be considered as having acted imprudently in any part of his arrangement, it was certainly in engaging so large a proportion of persons unconnected with the United States by birth, citizenship, or feelings, in the formation of establishments which were so essentially American in character and objects. That those establishments should have fallen must be a subject of regret to every American, as there can be little if

any doubt that, had they been maintained until the termination of the war, the enterprise would have succeeded, and the whole region drained by the Columbia would now be in the quiet and undisputed possession of the people of the United States."

It will be interesting, if not useful, here to insert the account of the capture of Astoria, as related by Ross Cox, who received his information at the place, shortly after the event:

"Captain Black took possession of Astoria in the name of his British majesty, and rebaptized it by the name of 'Fort George.' He also insisted on having an inventory taken of the valuable stock of furs, and all other property purchased from the American company, with a view to the adoption of ulterior proceedings in England for the recovery of the value from the Northwest company; but he subsequently relinquished this idea, and we heard no more about his claims. The Indians at the mouth of the Columbia knew well that Great Britain and America were distinct nations, and that they were then at war, but were ignorant of the arrangement made between Messrs. M'Dougall and M'Tavish, the former of whom still continued as nominal chief at the fort. On the arrival of the Raccoon, which they quickly discovered to be one of 'King George's fighting ships,' they repaired armed to the fort, and requested an audience of Mr. M'Dougall. He was somewhat surprised at their numbers and warlike appearance, and demanded the object of such an unusual visit. Coming, the principal chief of the Chinooks, (whose daughter M'Dougall had married,) thereupon addressed him in a long speech; in the course of which he said that King George had sent a ship full of warriors, and loaded with nothing but big guns, to take the Americans and make them all slaves, and that, as they (the Americans) were the first white men who settled in their country, and treated the Indians like good relations, they had resolved to defend them from King George's warriors, and were now ready to conceal themselves in the woods close to the wharf, whence they would be able, with their guns and arrows, to shoot all the men that should attempt to land from the English boats, while the people in the fort could fire at them with their big guns and rifles. This proposition was uttered with an earnestness of manner that admitted no doubt of its sincerity; two armed boats from the Raccoon were approaching, and, had the people in the fort felt disposed to accede to the wishes of the Indians, every man in them would have been destroyed by an invisible enemy. Mr. M'Dougall thanked them for their friendly offer; but added, that, notwithstanding the nations were at war, the people in the boats would not injure him or any of his people, and, therefore, requested them to throw by their war-skirts and arms, and receive the strangers as their friends. They at first seemed astonished at this answer; but, on assuring them in the most positive manner that he was under no apprehension, they consented to give up their weapons for a few days. They afterward declared they were sorry for having complied with Mr. M'Dougall's wishes; for when they observed Captain Black, surrounded with his officers and marines, break the bottle of port on the flag-staff, and hoist the British ensign, after changing the name of the fort, they remarked that, however we might wish to conceal the

fact, the Americans were undoubtedly made slaves; and they were not convinced of their mistake until the sloop-of-war had departed without taking any prisoners."

In the *Missionary Herald* for October, 1839, we find a very graphic and interesting account, by Mr. Spaulding, (a missionary,) of a journey from Missouri to the Columbia river, and of the region west of the Rocky Mountains. And here we would remark, that the *Missionary Herald* acts as a journal of geographical discovery; for, as it contains the latest and most accurate accounts from all the countries of the globe, some of which have been before unvisited, but now traveled and closely observed by the missionaries of Christianity. It is a most valuable work of travels, from which all classes of people may derive instruction and amusement, from the habits and manners of different nations.

The following extracts will show the route traveled by the missionaries, and the climate and resources of the country around the mouth of the Columbia river:

"The communication from which the following extracts are taken was written soon after Mr. Spaulding and his associates, including Mrs. S., Doctor and Mrs. Whitman, and W. H. Gray, left the frontiers of the state of Missouri about the first of May, 1836, in company with a company of gentlemen engaged in the fur trade. Their route, as did that of Mr. Parker, the preceding year, generally lay near the Missouri river, till they reached the Platte, thence along that river to its fork, and thence along the north fork, by the Black Hills, to or near its source, thence to Green river, one of the head branches of the western Colorado, thence to the waters of Bear river, which empties into the great Salt Lake, and thence to the head waters of Louis' river, the southern branch of the Columbia, on which, or on the streams which run into it, they pursued their course to Fort Wallawalla, one of the principal trading ports of the Hudson's Bay Company, about three hundred miles from the Pacific ocean.

"The mission family took with them a small wagon, which, however, they left behind them when they had accomplished about half their journey. They preferred to travel on horseback, and nearly the whole distance of more than two thousand miles was passed in that manner. As the country is not inhabited except by wandering bands of Indians, when the supplies of provisions with which he started shall be exhausted, the traveler must depend for the means of subsistence upon the game which may be taken as he proceeds. Of course he must confine himself almost entirely to animal food, while he will find that to be scarce, and of a bad quality. Mrs. Spaulding and Mrs. Whitman are believed to be the first white women who have crossed the Rocky Mountains. But, though subjected to many hardships and privations, and some perils, the health of the whole party was decidedly improved by the journey.

"Mentioning the inconvenience experienced from the want of bread and vegetable food, Mr. Spaulding remarks:

"Our friends must think of us sitting on the burning sand with a cup of tea in one hand, and a piece of dry, mouldy, and sour buffalo meat in the other, and this for our breakfast, dinner, and supper for days and

weeks together. As we drew near Wallawalla, we heard of its beautiful cattle, its hogs, and other fruits of civilized life; and, be assured, the anticipation of once more getting into my hand a potato or crust of bread, was nowise favorable to my sleep at night. But, on reaching this desirable haven of rest, we were so suddenly transported from our former wild mode of living to that of civilized life, and so kindly treated by Mr. P., clerk of the Hudson's Bay Company, in charge of this establishment, that we were made almost to forget what we had been going through for days, and weeks, and months past. It seemed like a dream. And even now I cannot realize that I have spent the last spring and summer in passing the Rocky Mountains; and that I am really through the journey and that my eyes actually behold the waters of the beautiful Columbia.

"It was of the highest importance, before we took a single step, to have an interview with the chief factor of the company on the Columbia, in charge at Fort Vancouver, for the purpose of presenting our letters from the United States Secretary of War, learning his feelings respecting our object to this country, and the prospect of supplies. Mr. P. very kindly offered to fit up a boat and take us down. You may very naturally suppose that our ladies were not much fatigued at the end of their journey, and that traveling had become almost a second nature to us, from the fact that, arriving at the fort Saturday in the forenoon, in the afternoon we set about preparing for a trip of three hundred miles down the terrible Columbia to this place. We left Wallawalla the sixth of September, in a boat propelled by six oarsmen. The usual time for a passage down is five days. We were detained by head winds, and did not arrive till the twelfth. Here we were again met with the warmest expressions of friendship by Dr. M'Laughlin, who conducted us immediately to his house. After a brief interview he conducted us to his gardens, and, be assured, we were not a little surprised to see, west of the Rocky Mountains, where we expected to meet scarcely the first buddings of civilization, such perfection in horticulture. About five acres are laid out in order, and stored with almost every species of vegetables, fruits, and flowers; and among them, figs, citrons, oranges, lemons, pomegranates, cotton-plants, and all common fruits found in the United States. Every thing produces well. For some days our time was divided between visits on the farm, to the mills, herds, the dairy, the stores, the ships in the port, the schools, &c. It of course gave us great satisfaction to witness these fruits of civilization, which we supposed our eyes had looked upon for the last time when we passed the frontier line of our own land. Dr. M'Laughlin's farm is the largest on the Columbia river, and produced, last year, four thousand five hundred bushels of wheat, four thousand bushels of peas, one thousand seven hundred bushels of barley, one thousand five hundred bushels of oats; potatoes not gathered, corn but little. His horned cattle are seven hundred and fifty, swine four hundred, with from two to three hundred horses. He has also a saw-mill and a flour-mill.'

"Mr. Spaulding mentions, that nearly all the chief factors, traders, and clerks, at Vancouver, are members either of the Episcopal or Presbyterian church, and that a chaplain of the former church had just arrived from

London. All appeared decidedly favorable to missionary efforts. The laboring men are principally French Catholics from Canada."

The following great natural curiosities are not the least which exist in our country :

"The geological structure of the earth, except a tract of beautiful granite, through which we traveled for a few days near the Black Hills, and one or two specimens on Snake river, is one and the same, viz.: basaltic. It would seem that the entire Rocky Mountains, extending even to the Pacific ocean, have been thrown up from the bowels of the earth by internal fires. The country of the Columbia river, especially, is a beautiful specimen. The bluffs on either side rise to the height of one hundred to one thousand two hundred feet, in benches of perfect flutes, closely piled, all perpendicular, with the exception of two small piles which I observed in passing from Wallawalla to this place—one horizontal, the other oblique. For one whole day, while passing the Blue Mountains, two days from Wallawalla, we were upon cut stone, or stone broken by some natural agency, and resembling very much continued heaps of such broken stone as is prepared for covering roads in the states. This day's travel injured the feet of our animals more than the whole journey besides. In fact, we found but little difficulty till we reached these mountains. Most of our animals made the whole journey without being shod. We drove a wagon to Snake Fort, and could have driven it through, but for the fatigue of our animals. We expect to get it at some future time.

"The whole face of the country, from Fort William, at the foot of the Black Hills, till within six or seven days' travel of Wallawalla, is covered with the mountain-sedge, a species of wormwood, with a fibrous stalk of the size of a man's wrist, and from three to four feet high, having a dead appearance. No creature, I believe, eats this bitter herb, unless compelled by hunger. This sedge was some obstruction to the wagon, though but little to the pack-horses.

"Three days before we reached Fort Hall, we passed what seems to me one of the greatest curiosities in the world—a natural soda fountain of unknown extent, having several openings. One of them is about fifteen feet in diameter, with no discovered bottom. About twelve feet below the surface are two large globes, on either side of this opening, from which the effervescence seems to rise. However, a stone cast in, after a few minutes, throws the whole fountain into a violent agitation. Another of the openings, about four inches in diameter, is through an elevated rock, from which the water spouts at intervals of about forty seconds. The water is, in all its properties, equal to any artificial fountain, and is constantly foaming and sparkling. Those who visit this fountain drink large quantities of the water, with good effect to health. Perhaps in the days when a railroad connects the waters of the Columbia with those of Missouri, this fountain may be a source of great gain to the company that shall accomplish such a noble work, if they are beforehand in securing it. For, I am sure, if visitors can come from the far East to see the Niagara Falls, they would not value a few days more to visit the West, and see the great soda fountain of the Rocky Mountains.

"Within a few days' ride o. Salmon Falls, we passed three grand shoots of water, where small rivers rushed from the perpendicular bluff, and fell from a height of about five hundred feet from the surface of the earth, and three hundred from the surface of the river, from the lofty banks of which they fall.

"Four days before reaching Snake Fort, we passed three hot springs; I also saw several afterward. The water was at a boiling heat. Fish were boiled sufficiently in them in twenty minutes.

"The last thing I will mention under this head is Grand Round—so called from its appearance. It is a beautiful, rich, circular plain, probably twenty miles in diameter, surrounded on all sides by mountains, covered with beautiful pine and spruce. A considerable river passes through the middle, skirted with timber. This is in the Chingoo country, and is in a favorable place for a mission.

"We left Snake Fort on the twenty-second of August, and arrived at Fort Wallawalla on the third of September. Wallawalla is on the south side of Columbia river, nine miles below the mouth of Snake or Lewis river, and at the junction of Wallawalla and Columbia rivers. It was built by the Hudson's Bay Company, fifteen years ago. No timber except floodwood is found within twenty-five miles. The soil is good in small spots on the Wallawalla river. All kinds of grain and vegetables produce well. Cattle surpass in fatness any thing I ever saw in the United States. Horses are as plenty and about as cheap as in our country—beautiful, and usually milk-white or cream color. All animals feed out through winter, as there is but little snow. The grass is of a superior quality, called the Buffalo grass—a fine, short, bunch grass, covering the whole face of the earth. This grass is one among a thousand marks of the goodness of God in providing for all climates and sections of the earth. It might naturally be supposed—there being no rain or dew in this country for six or seven months in the year—every thing would be parched by the sun, and there would be no means of subsistence for animals; but this grass remains through the season quite fresh, retaining all its virtue, and forms very hearty food for winter. As soon as we came to it, about six days before arriving at Wallawalla, our animals would leave the green grass on the streams, and seek this on the sand-hills and plains.

"With regard to the country which we passed, nothing probably could have set me right but actual observation, so different is the reality from what I had previously imagined. The fact that the vast interior of North America is a barren desert, is not, as far as I am aware, very extensively known in the United States. On the twenty-second of June we entered the Rocky Mountains, and came out of them on the first of September. Till we reached the forks of the Platte, we found some timber and considerable fertile soil on the water courses, though both diminished to that point. From that place, excepting a little spot at Fort William, Fort Hall, Snake Fort, Grand Round, Wallawalla, till we come within a hundred miles of this fort, (Vancouver,) the whole country is a barren desert, with only here and there a little patch of grass and willows planted, it would seem, by the hands of a kind Providence, just

often enough for stops at noon and night, reminding one of the great Sahara of Africa. In the morning we would mount our horses and ride hour after hour, through plains of burning sand, or over mountains of rocks, till about midday; and when ourselves and animals had become thirsty and hungry and tired, we would come suddenly upon a cool spring or stream of water, with a few acres of excellent grass for our horses, (excepting the rout from Fort William to Rendezvous, where they suffered much,) and a little cluster of willows for fuel. So we would travel in the afternoon till we came upon a similarly favored spot, about the hour when we wished to encamp for the night.

"A few days we were compelled to travel all day, some twenty or thirty miles, to find water and grass. The region of the Snake or Lewis river, especially, is the most barren of our whole route. We camped but a few times on the river, and always found a limited supply of grass and willows. Except these few spots, we could not discover a green thing upon its borders; from Fort Hall, where we struck it, to Snake Fort, where we left it, there is nothing but a vast plain of burning sand, with here and there a mountain of burnt rocks. Our route lay generally some miles from the river, where we found food and water, as above mentioned. The river passes through a channel of cut rocks, from one hundred to five hundred feet deep, with frequent rapids, and four or five considerable falls. It is not navigable, on account of its rapidity. So far from being a country of game, except the buffalo country, it is a country of comparatively no game. Since leaving Fort Hall, we have traveled days, and I do not know but I can safely say weeks, without seeing a living creature except a few crows in the air, and herds of black crickets upon the ground. We saw but two bears on the whole route. However, I learn that in the mountains, deer, antelope, elk, and bear, can be found to some extent, even in the most destitute parts of the country. The rivers abound in fish. The Columbia and its branches teem with salmon, three or four months in the year, during which time two or three hundred barrels are salted at Fort Vancouver. A little care during the salmon season, and all the settlers of the Columbia may supply themselves with salt salmon for the year. The salmon find their way into the mountains, up the several tributaries of the Columbia. We found them plenty at Salmon Falls, ten days below Fort Hall, perhaps a thousand miles from the ocean. They continue to beat their way up the rivers and small streams, till their strength is exhausted and they float lifeless upon the shore. Not one of the countless herds that enter the mouth of the Columbia, every season, ever return. They are mostly dead by the first of October. The Columbia also abounds in sturgeon and seal."

Dr. Gardner says:—"I have ascertained already the existence of six distinct species of salmon in this river—five of which I have seen and preserved. The period of spawning of each is different. From what information I have collected regarding their habits, this is the country to study this singular fish. It is found at the very sources of the Columbia, notwithstanding the innumerable rapids and cataracts which must be passed. Almost every where the natives assert that the fish which ascend the stream never return to the sea, nor were the young salmon ever seen

to descend to the ocean. The last is certainly incorrect, and must arise from the fry being so small as to elude observation. The former is not unlikely, from the circumstance of the salmon, in the months of November and December, being found at the heads of all the streams, dying by thousands, and completely choking up the current with their dead bodies. They have often been seen with their noses fairly worn down to the bone, and in the last stage of emaciation; yet still, by some unaccountable impulse, striving to ascend the stream to the very last gasp. It is singular that the salmon pass by some of the tributary streams in their passage upwards, and prefer some of them to others. Few or none, for instance, are ever got in the Kowalitit or Deasis rivers. They seem to delight in those streams where their progress is impeded by rapids and cascades; and it is remarked that in Frazee's river, no sooner have they emerged from the rapid current of the main stream into the still waters of Stewart's lake and other lakes, than they become flabby and of inferior flavor. The muscular power of this fish is astonishing, even in a class of the animal kingdom remarkable for the energy of its movements; for they are seen to ascend channels at Kettle's Falls, into which a stone as large as a man's head, when dropped, is borne downwards with the swiftness of an arrow, and where it is impossible, by any force, to push a pole even to an inconsiderable depth."

The most prominent features in this region, are the Rocky Mountains, and their intersecting ridges. They form one branch of the Andes, which commences at the southern extremity of South America, and after following the borders of the Pacific the whole length of that portion of America, they pass through the Isthmus of Darien, Guatamala, Mexico, and north through the Oregon toward the arctic regions. The range passing through the Oregon, is called the Rocky Mountains. They rise abruptly to a great height, on the western side of the great American plains, and have doubtless formed, at some remote period, the boundary of a vast internal sea, whose bed was the valley of the Mississippi. On the western side, the descent is by regular terraces to the ocean. The northern portion of this great chain of hills gives origin to some of the noblest rivers in the world.

The Rocky Mountains consist of primary formations, chiefly of igneous rocks. On the adjacent plains, especially on the west, are extensive volcanic tracts, and a considerable portion of this section of country is composed of primary mountains and sandy plains, until we approach the borders of the Pacific. Many thermal and brine springs have been found, containing medicinal virtues of a high character; and west of the mountains are large beds of rock salt. Gypsum is found in abundance in many parts, and in the vicinity of Platte river are many fossil remains. The banks of the Missouri are, in many places, formed of limestone cliffs, two and three hundred feet high; and in some districts good bituminous coal has been found. Some distance above the junction of the Missouri and the Platte, are high perpendicular bluffs of chalk. Pure sulphur is also found in the vicinity of Great Salt Lake, and the whole range of the Rocky Mountains is supposed to abound in iron.

All travelers agree in portraying the country, west of the mountains,

in the most glowing colors, and represent it as composed of a variety of hill and dale, fertile soil, magnificent forests, and pure irrigating streams. The climate is spoken of as peculiarly benign; and during the whole year, perpetual spring seems to reign, so little is it subject to the extremes of heat and cold. Lewis and Clark, who spent a winter and spring there, represent the weather as very mild. They had a few frosty nights, but saw no ice, and the weather continued so warm that they were obliged to smoke their meat to preserve it. In March the leaves put forth, the flowers sprang up, and when on the thirtieth of that month they took their departure, the grass was sixteen inches high on the river bottom.

Mr. Irving, in his "Astoria," speaking of the climate of this region, says:—"A remarkable characteristic of the country west of the Rocky Mountains, is the mildness and equability of the climate. That great mountain barrier seems to divide the continent into different climates even in the same degree of latitude. The rigorous winters and sultry summers, and all the capricious inequalities of temperature prevalent on the Atlantic side of the mountains, are but little felt on their western declivities. The country between them and the Pacific is blest with *milder* and *steadier* temperature, resembling the climate of parallel latitudes in Europe. In the plains and valleys, but little snow falls throughout the winter, and usually melts while falling. It rarely lies on the ground more than two days at a time, except on the summit of the mountains. The winters are rainy rather than cold. The rains for four months, from the middle of October to the middle of March, are almost incessant, and often accompanied by tremendous thunder and lightning. The winds prevalent as this season are from the south and southeast, which usually bring rain. Those from the north to the southwest are the harbingers of fair weather and a clear sky. The residue of the year, from the middle of March to the middle of October, an interval of seven months, is serene and delightful. There is scarcely any rain throughout this time, yet the face of the country is kept fresh and verdant by nightly dews, and, occasionally, by humid fogs in the mornings. These are not considered prejudicial to health, since both the natives and the whites sleep in the open air with perfect impunity. While this equable and bland temperature prevails throughout the lower country, the peaks and ridges of the vast mountains by which it is dominated, are covered with perpetual snow. This renders them discernible at a great distance, shining, at times, like bright summer clouds; at other times, assuming the most aerial tints, and always forming brilliant and striking features in the vast landscape. The mild temperature prevalent throughout the country is attributed, by some, to the succession of winds from the Pacific ocean, extending from latitude twenty degrees, to at least fifty degrees north. These temper the heat of summer, so that in the shade no one is incommoded by perspiration."

"Early in October, 1855," says Mr. Wells, in his *Wild Life in Oregon*, "with an old companion of my peregrinations—one of those golden-tempered, delightful traveling-companions with whom to associate is a perpetual treat—I found myself on board the staunch steamship *Columbia*, bound from San Francisco to Oregon. On the evening of the second day we came in sight of Trinidad, a little hamlet situated

about two hundred miles north of San Francisco. It was quite dark as the steamer came to, near a black, sun-beaten rock, through whose caverns the sea roared with a dismal moan. An inhospitable coast is that of California and Oregon, where, from San Diego to Puget Sound, a distance of thirteen hundred miles, there is found but one port—that of San Francisco—to which the dismantled ship may fly for refuge in a gale from seaward. Trinidad is a 'port;' but justly regarded with terror by the mariner in times of tempest. The fog limited our observations from the quarter-deck to a few dimly-discerned huts far up the bank, and the only sound of civilization was the distant crying of a child ever and anon mingling with the surf's roar. Freight was discharged, and a speedy leave taken of sorry-looking Trinidad. On the following morning the discharge of a gun from the bows brought us to the deck, when we found the steamer heading into the bay or roadstead of Crescent City. This, like most of the harbors on this coast, can only boast of its capacity. It extends from the houses of the inhabitants entirely across the Pacific. It is proposed to build a breakwater here, and so form a natural harbor. An indefinite number of millions of dollars are named as an estimate cost. Crescent City is three years old, situated on the sea-beach, backed by a dense mass of pine and cedar forest, inhabited by several hundred traders, packers, Indians, dogs, and mules. A brisk ride to Cape St. George, taken during our stay here, satiated our curiosity. The country becomes uninteresting after the forest and green undergrowth of coast-trees have ceased to be novelties. The men were mostly "Pikes" of an exceedingly rough cast, and the Indians, who were the first specimens of the Oregon savage we had met with, were decidedly to us the lions of the town. Wandering out towards a rocky promontory north of the town, and designated as the Battery, we found an encampment of the Chetkoe tribe. Three old women among them were quite blind, and, squatting in the sand, were feeling nervously around for some bits of willow which they were fashioning into baskets—time out of mind the Indian's occupation. Several young squaws accosted us in broken English. One of them was really pretty, and but for some barbarous tattooing, nose and ear pendants, and a villainous smell of decayed salmon, would have been a very Fayaway. This young lady was in *dishabille* as we passed, and though making her toilet with otter fat, glass beads, and shells, did not shrink at the unexpected visit. The entire party wore a dress composed of equal parts of cheap blankets, cast-off coats and shirts, and the usual savage finery. The men sported the bow and arrow armor with a *coyote* or fox-skin for a quiver. All had the ears or nose slit, and one or two coquettish young jades of squaws wore fish-bones through their nostrils, and were otherwise scarified and marked.

On the same afternoon we bade adieu to Crescent City, and were quickly again on our way to the northward. On the following morning the ship's reckoning showed us to be opposite Port Orford, and this being our proposed landing-place, we watched with some curiosity for the lifting of an impenetrable veil of fog which shut out all view of the coast. The speed was slackened, and the 'blue pigeon' kept constantly moving. Suddenly on our starboard bow, appeared a lofty rock looming out of the

mist. It was a grand and startling spectacle. Though the sea was comparatively calm, the ground swells surged up around its base in piles of boisterous foam, roaring among the caverns and gulches, and rushing up to the height of forty feet; then, as the swell receded, the whole surface presented a bold front of yeasty rivulets, white as milk, and trickling down the rough sides of the rock in hissing cascades, as one might imagine they would down the furrowed cheeks of some awful giant of Scandinavian romance. Clouds of birds hovered around the peak, screaming and dipping down to the waves, and scolding at our sudden intrusion. Our new acquaintance disappeared astern almost as soon as we had descried it. It is the southwestern point of Port Orford harbor, and is one of the enormous boulders rolled by some convulsion of nature from the steeps of Humbug Mountain, which rears its head far above the surrounding country. We could now run with some degree of certainty, and heading boldly in, a gun was fired, the echo of which had scarcely done rattling through the coast-range when it was answered from on shore. A moment after the shrill scream of a rooster came across the water, and the fog lifting, opened to our view a bluff bank, perhaps forty feet high, upon which was situated a small town, with some forty houses, half-deserted, and standing at the verge of a bank of lofty foliage, forming the great fir and pine region which skirts the Oregon coast from the California line to Puget Sound.

From under the lee of a promontory known as 'Battle Rock,' and the history of which we shall presently review, a boat put forth through the surf, into which we were bundled, and grasping the hands extended in kindly parting, we had soon made our first landing on the Oregon coast. As we rounded the point we looked back upon the steamer heading out to sea, and pursuing her way to the Columbia river.

We landed at a little lumber wharf, whence a short walk brought us to the United States Barracks; and entering the house of Dr. Glissan and Lieutenant Kautz, we were soon engaged in conversation with a party of educated gentlemen, whose cultivated talents shone the more conspicuously in the wild region that duty had made the place of their residence. About three hundred yards from the government reserve, and hidden from it by an intervening range of hills, is situated the little town of Port Orford. Its history is that of the sudden and too ephemeral growth of the coast villages of Oregon.

In 1851 a party of men from Portland, Oregon, selected this spot for the site of a town, depending upon its roadstead and the facility of communication with the interior for the basis of its success and growth. The discovery of the auriferous sands of Gold Bluff, which were found to extend along the entire coast, from Rogue River to Cape Arago, also augmented the progress of the place. The original party consisted of eighteen men; but finding their stock of provisions becoming exhausted, and there being no means of supplying the deficiency, half returned to Portland, leaving nine of their number to await their return. At that time the character of the country between the California line and the Columbia river was unknown. Its deep rivers, bays, tribes of Indians, and topography, were sealed in a book, save to a few venturesome old

hunters, and trappers who had wandered down the coast even to the Humboldt; but their accounts, vague and uncertain, were unknown.

This section of Oregon contained about two thousand Indians, divided into numerous tribes, who soon became aware that the whites had settled their country, and, with savage hostility, determined to crush the band at Fort Orford. Their rapidly increasing numbers alarmed our little garrison, who retreated upon what is now known as "Battle Rock"—a natural fort showing three precipitous sides toward the ocean, and only accessible from land by a regular causeway. The parapet of this fortification stands not less than fifty feet above the tide. Here they encamped, and barricading the only vulnerable point, they directed a brass six-pounder field-piece from a port-hole left for the purpose, and, loading their rifles, prepared for the worst. The precaution was well timed. The day following this removal, the tribes from the Umpqua, Coquille, and Rogue River, congregated, and mustered nearly a thousand braves. Armed with bows and arrows, and ignorant of the deadly qualities of the American rifle, they advanced up the passage-way with yells that made the little band within quail with apprehension. The besieged were under the command of a Tennessean, who restrained the men until their tattooed assailants had approached in an irregular mass, four or five deep, to within a few yards of the field piece, when the order to fire was given. My informant, who was one of the party, described the scene in Texan vernacular, which I regret I am unable to repeat. It would depict the scene a thousand-fold more graphically than I could write it.

In loading the gun, which was done with slugs, stones, and bits of iron, to the muzzle, they had exhausted their slender stock of powder to two rounds of pistol and rifle charges. As the eyes of the savages gleamed through the chinks of the brushwood barricade, the death-dealing discharge tore through their ranks. This, followed by a well-directed volley from the rifles and revolvers, of which every shot told, sent such of the Indians as were not wounded pell-mell back. What with the roar of the cannon, the crackling of the fire-arms, and the yells of the wounded, the whole mass took to their heels and fled affrighted into the forest. Numbers were dashed into the boiling surf below, or killed among the rocks in their descent. This was the first and last volley. No estimate was made of the slain. Indeed, they staid not to count, but after a hurried consultation, and fearful of the return of the Indians in still greater force, and knowing their want of ammunition, they abandoned the fort and, taking to the forest, traveled for several weeks, entering the Willamette Valley, and so reaching Portland.

It was a bright sparkling morning, the sun pouring down a flood of radiance after the rain of the previous night, when we mounted two shaggy but strong Indian ponies, and set out for the Empire City, a Coos Bay. Every leaf seemed to glitter in the light, and dew-drop sparkled in every bush. It was a morning to make one "love to live," as the lungs expanded with the respiration of the cold and bracing air. One goes through the undulating country of Oregon with an exhilaration of spirits like that following the inhalation of laughing gas. The characteristic features of the autumn months of California is not found among these ve

dant woods. Green and fragrant health-blossoms adorned the sides of the road, and at times we crossed some noisy rivulet, scolding its way toward the sea, half concealed by an overhanging drapery of verdure fed by its waters.

This continued for some miles, when we came out upon the sea-shore and now, joined by a couple of horsemen bound to some point above, we scampered over a hard sand beach, until we reached the Elk River H—— having passed this way about a year before, and anxious to display his knowledge of the route, selected the ford, and dashed in, but was soon up to his middle, and reached the opposite banks, having partaken of a cold bath much against his will. The rest, more cautious, mounted the tops of their saddles, and escaped with only wet feet. This river during the winter months is impassable. The distance from a log-house standing on the bank to the Sixes River is some six miles, the road leading through a thickly-wooded country. On the route we crossed Cape Blanco, which, until the completion of the recent coast reconnaissance, was supposed to be the most westernmost point of the United States. Cape Mendocino, however, in California, is believed to be a mile or two further seaward. Our new friends had left us, and we galloped along the verge of the beetling cliff, where we paused to "breathe our horses," and gaze off into the blue ocean beyond.

Here, since the creation, these foaming breakers have chafed, and the rocks skirting the base of the precipice have dashed them defiantly back. From the pitch of the Cape a dangerous reef of rocks, standing high above the water, stretches out to sea; the rocks, as we stood and held our hats on in the face of the sea-breeze, were sometimes hidden in the toppling foam. A line carried directly west from where we stood would nearly reach Jeddo, and meet with no impediment on the way. All is "deep blue ocean" between. Here the footsteps of Young America must pause a while. From this point we may look back upon the continent. The Cape is a prominent landmark to the mariner, and from here the land trends away to the northeast, giving to the headland the appearance of a shoulder thrust far into the sea. The bluff, crested with pine-trees, standing almost upon the very brink, and sloping thence inland, forms a plateau, or piece of table-land, finely wooded, across which the sea gales whistle with unchecked fury. From the Cape to "the Sixes" is about two miles. The country slopes to the northward, forming a valley through which the river flows to the ocean. The Sixes has not yet been traced to its source, though it takes its rise not above forty miles in the interior. It can be ascended with canoes about twelve miles, and is said to wind among fertile bottoms and reaches of prairie land hitherto only traversed by Indians and wild beasts. It empties into the ocean under the lee of a huge rock, but the bar is impassable even for a canoe. From seaward no entrance can be discerned. At its mouth stands Dan's cabin.

"Dan" is an old Norwegian sailor, whose half century of adventures have carried him thrice around the world. He has sailed under every flag in Christendom, has fought in numerous naval engagements, and has been often wounded. Among the otter and bear hunting community in

which he is now located, and who never saw salt-water or ship until their journey across the continent to the Pacific shores, he is regarded as a curious ocean monster, to be listened to respectfully, and heeded with more than ordinary awe. His fearful oaths—almost unintelligible, from the Dutch jargon with which he mingles them—his rough, outlandish appearance, his undisputed courage, and kind simplicity, have made him notorious, and the traveler along the coast looks forward with sharpened appetite to the roasted salmon or broiled bear-steak at "Dan's."

We arrived at the ford at dead low-water, and H—— determined to push across, though the quicksands are said to be dangerous at that point. However, we plunged in, and by dint of spurring and shouting, we reached the opposite side. Dan's hut is about two hundred yards from the northern bank. We rode up to the door of a log-cabin situated at the mouth of a ravine, and partly embowered in its tangled foliage. From this issues a rivulet discharging into the river; and here the old Northman has decided to pass the rest of his days, within hearing of the ocean's roar—just near enough to be reminded of his many adventures, and yet secure from its dangers,

Dismounting, we tied our horses to a post, while the door opened, and a long-haired, sober-faced trapper, with a face like leather, and with the seriousness of a parson, gazed out upon us with Indian stoicism. He was about thirty-five years of age. Around his head was a dirty handkerchief, the ends of which hung negligently down his face. Slashed buckskin pants, hunting-shirt, and moccasins, made up his apparel, while the short black pipe, which he held firmly between his teeth, showed that our arrival had disturbed him in the enjoyment of the hunter's elysium. He regarded our operations with silent indifference, and when we inquired for Dan, replied by throwing open the door, which hung on wooden hinges, and reentered the cabin, leaving us to follow if we pleased. After fastening our animals we entered, and found the trapper already stretched before the fire, gazing immovably at the smoky rafters, and pulling gently at the digestive pipe. It was evident that an attempt to disturb our new acquaintance again would be useless, so we shouted, "Dan! Hallo there, Dan!" whereupon a savage growl from one of the hide beds in the corner announced that the lord of the manor was taking an early snooze.

"Can you get us something to eat, Dan?" said I, in my blandest tone.

"Are you Coos Bay people?" asked the voice from the bed.

It flashed across me that a slight fib in such a strait would be excusable, and thinking that the Norwegian might have a peculiar regard for the denizens of Coos Bay, I replied "Yes!"

"Well, get out o' my cabin den, you bloody sneaks! Da don't ne Coos Bay man get no grub in my cabin—they're mean enough to pack their own grub!"

It was evident I had made a mistake, and I hastened to explain, when H——, who had known Dan, came to the rescue.

"Dan! don't you know me? It's the Doctor; Dr. H——, that cured you of the rheumatics last year. Don't you remember me, old fellow?"

At this the heap of bed-clothes began to move, and the old Norwegian, grunting with pain, came out of his lair. He speedily knew the Doctor, and welcomed him, but without deigning me a word or look. The sight of a fat haunch of elk hanging from the ridge pole obliged me to smother my feelings.

Without a dozen words he got to work, and in another ten minutes was roasting several fine steaks before the fire, which crackled in a huge chimney of mud and stones. Silence seemed the order of the day in this hermit's abode; so, without saying, by your leave, I stepped over the body of the trapper, and took down from the fire-place notch a soot-begrimmed pipe, half filled with the "dear weed," coolly lit it by an ember, and puffed away.

Dan said nothing. Thus encouraged, I addressed a few words to him with a view of opening a conversation, but without success, and a garulous attempt upon the still motionless trapper was equally without avail. Foiled so far, and determined to draw the old fellow out, as I learned he had a fund of anecdote, I produced a flask of brandy, saved as a precious relic of San Francisco, and taking a swallow to prove it was not poisoned, passed it silently to the old sailor. He smelt at the mouth, and immediately took a strong pull at its contents, uttering a prolonged and satisfactory "A—h!" as he returned it. The fountains of his loquacity were opened at once, and turning a curious glance toward me, he observed,

"You didn't get that at Port Orford, no how!"

"You say right," said H——.

And therewith commenced a conversation of an hour's duration; but the trapper, though paying his respects to the flask, said nothing. Throughout this class of men it will be observed, that being alone and in the silent forest or mountain solitudes the greater part of their lives, they acquire a taciturn habit, which seldom leaves them.

We found, by actual experiment, that the sand in the bottom of the rivulet near the house contained gold in fine particles. Dan hobbled out and washed a pan of earth, in which were hundreds of minute specks of the precious metal. The whole ocean beach of Oregon is thus impregnated with gold, to a greater or less extent. Among other facts, Dan stated that a law went into operation last winter in Oregon, prohibiting the sale of liquors except by the payment of a quarterly license of fifty dollars. No sooner had the law gone into effect than the deputy sheriff started from Coos Bay, and traveling rapidly through the country before the law could become generally known, had taken every place in his route where liquor was sold, and imposed the fine for selling without a license. Dan's was among the proscribed number, and to this day he heaps anathemas on Coos Bay and its entire population, not one of whom need apply at his door for entertainment. This explained his ominous question on our entrance,

"Are you Coos Bay people?"

We gradually grew to be good friends with both Dan and the trapper, and both took particular pains to direct us on our route. By the time our horses were rested, we had learned all the necessary facts regarding

the country, and paying our score, we mounted and started away to the northward, Dan's old white mare breaking away as we dashed past, and he and his companion performing a series of indescribable gyrations to arrest her evident intention of following us. We soon reached the ocean beach, where the nature of the sand admits of no faster motion than a walk. The sky to seaward began to thicken, and soon we were riding through a fog so dense that the banks of surf, a few hundred yards from us, were scarcely visible. After an hour H——'s black beard was sparkling like hoar-frost—the glittering drops standing upon his mustaches as in a winter's morning in New England. The fog was driven inland by a keen wind that searched every seam and opening. It was like riding in the rain. Such weather may be counted on two-thirds of the year along the Oregon beach.

While on the route we met Ben Wright, the sub-Indian agent, an experienced hunter and trapper, whose life has been passed in the mountains and on the Western frontier. He was a man of some thirty-two years, with black curling hair, reaching, beneath a slouched Palo Alto hat, down to his shoulders; a Missouri rifle was slung across his back, and he rode a heavy black male with bearskin *machillas*. Altogether, he was a splendid specimen of a backwoodsman, of noble stature, lithe as an eel, of Herculean strength, and with all the shrewdness and cunning acquired by a lifetime passed among the North American Indians. Almost disdaining the comforts of civilized life, and used to the scanty fare of the hunter, he seemed peculiarly fitted for the office he held. I am thus particular in the description of Ben Wright, as his name has just been published among those who were butchered by the Chetkoe tribe at Rogue River in February last. He was in company, when we met him, with several others, any of whom would nearly answer to this description. Some of them have shared his fate in the massacre above referred to.

Our next crossing was at Flores Creek, which we now easily forded; but in winter it becomes a formidable stream, and during the heavy rains is impassable. The ford is two miles above the mouth. This crossed, we again struck the monotonous ocean beach. The route for many miles is one of the most uninteresting that can be imagined. The scenery is the same for twenty miles. A shouting conversation must be maintained to be intelligible against the high wind. Even the romantic associations attending the tumbling in of a heavy surf is in part denied—the mist often entirely hiding the outer breakers, and leaving one to imagine their force by the half acre of foam, which, rushing up the slant of the beach, expends itself in tiny ripples around the horses' feet. Presently we observed something in the distance resembling machinery, and a nearer inspection introduced a veritable gold-beach washing apparatus in full operation, under the brow of a tall sand bank, and superintended by three stout, contented-looking fellows, who assured us, in answer to our queries, that they were making from \$12 to \$25 per day "to the land." Not unused to the "tricks of the trade," as practiced in the California gold regions, we were disposed to be incredulous, until, by a few fair "prospects," of the gold sand, and an explanation of the means

operands, we were finally convinced of the truth of the statement. In a word, the entire sea-beach, from Rogue River to Cape Arago, is more or less impregnated with fine gold sand, much of it an impalpable dust, and only to be extracted by the use of quicksilver. It is precisely the same thing as quartz mining—minus the labor and the expense of crushing the rock preparatory to the amalgamating process. A stream of water, conducted from a neighboring ravine, is led through wooden flumes to the “tom heads,” and the workmen “stripping,” or clearing away the drift, leave nothing to do but shovel tons of the black sand into the sluices, the trickling stream performing the process of separation, the fine dust escaping over these miniature *riffles* being arrested and amalgamated in a series of quicksilver deposits below. The greater part, however, is caught in the upper *riffles*. The stream was stopped a few minutes for our accommodation, and we found the bottom of the trough sparkling with innumerable minute specks of gold, and in half an hour the quantity had so increased that we could distinguish the fine gold sand glittering through the volume of water. It was a crystal brook with golden pavement.

The sand from the beach, however, drifted rapidly over their works, urged by the diurnal gales which sweep with full force across the place, and obliging the miners to erect high brush and board fences to prevent being buried by a slow process. I had often heard and read of these diggings; but until now had never realized the fact of a “golden ocean beach.” The Oregonians assert that, notwithstanding the constant working of these sands, they are found to be quite as rich the succeeding year—a fact which we could scarcely doubt when we learned that the present is the third working over of the “Stacy claim.”

Bidding adieu to our friends, and leaving them to their solitary fate of washing gold, we spurred onward, and another two miles brought us to the famous Coquille River, discharging from the southeast into the ocean. An abrupt descent brought us to the bank, where we found two log-houses of considerable pretensions, and owned by a Yankee and an Englishman, who have here established a ferry “for man and beast.”

Descending the bank, we stopped at the house—a couple of blooded dogs issuing from the yard and smelling suspiciously around our horses. The owners of the establishment made their appearance directly after, and the scow being hauled to the beach, we entered, horses and all, and were soon ferried across the river, which is above one hundred yards in width. The bar has about seven feet at low water. Availing ourselves of the directions given us by the ferrymen, we pursued our journey along a bluff bank overlooking the sea some fifty feet—occasionally getting close to the brink, where we looked down upon abandoned claims and gold-washing machines, until, at nightfall, we came to the now deserted town of Randolph.

A few lines will suffice to narrate the rise and fall of Randolph. Captain Smith, U. S. A., while on a visit to this part of Oregon, in the winter of 1853, discovered gold mingled with the sands of the beach. The story got wind, and thousands crowded from all parts of Oregon and California to these shores of the latest El Dorado. On the bluff

immediately above the most thoroughly worked claims, a town (Randolph) was commenced in the following June, and by the next winter about two hundred persons were located here, awaiting the breaking-up of the southeast gales to prosecute their labors. Their efforts, however, were not crowned with the success they anticipated. Some abandoned the place and left for California; others went to Rogue River, and soon the place was deserted.

We found two or three disconsolate families collected in the public pound, or corral, making an "arbitration," as a very talkative lady informed us, of the cattle of a couple who, having been married a year, had found the hymenial chains to hang heavily, and were about separating for life. Leaving nearly the entire population, consisting of nine men and women and a number of children, to this occupation, we drew up at the door of the least ruined house, and dismounted, to the satisfaction of a flock of flaxen-haired urchins, to whom our arrival was evidently a matter of great moment. A very pretty and interesting woman welcomed us, and was soon busily engaged in preparing our supper. Meanwhile we strolled out to see the lions of Randolph. Several vacant lots in a "streak" of deserted pine dwellings attracted my curiosity enough to inquire what had become of the houses; when our hostess responded that they had fallen a sacrifice to the fuel-gathering hands of the remaining population—in a word, they had been used up as firewood. What a picture! A town springing from nothing—growing—culminating in its career of prosperity, and burned as fuel in its decadence!

In another year not a clapboard will remain to tell the whereabouts of Randolph. Our hostess—whom we thought far too pretty to be wasting the bloom of her beauty in this bleak corner of Oregon—soon spread before us an excellent supper, to which we did such extreme justice that even she, not unused to the voracity of her Oregon visitors, stared up from her sewing at the rapid disappearance of the edibles. The master of the house announcing that our beds were ready, we tumbled into our blankets and slept soundly until daybreak, when the adjacent fizzling of some elk-steaks operating upon the olfactories of H——, he opened his eyes, sprang out of bed, and hastened to array himself. Breakfast dispatched and the bills paid, we remounted, and leaving the silent town to its requiem of the eternal surf, we struck off from the coast, and plunged directly into the woods. The most interesting part of our ride had now commenced.

The forest we were entering extends along the Oregon coast from Rogue River to Washington Territory, except where broken by rivers or belts of other timber. It is composed of spruce, fir, and yellow and white pine, and forms a mass of motionless woods of giant growth, and dark as a Gothic cathedral. Five minutes took us beyond the sound of the restless surf, and even the waving of the pines, as they wagged their tops in the gale, ceased as we penetrated deeper into the solemn silence of this grand old forest. The path, which had been cut through it at public expense, just wide enough to admit a horseman, was crossed in every direction with gnarled and crooked roots, forbidding our passage.

at a rate faster than a walk. The view, unobstructed by jungle or shrubbery, was bounded on every side by a perspective of great trunks, not twisted into knees, or protruding unsightly branches like the oak, but straight as arrows, and reaching, in some instances, an altitude of nearly three hundred feet.

No sound save the rustling of our stirrups against the low whortleberry bushes and blackberry vines disturbed the impressive stillness of the scene. Here and there lay the decayed form of some ancient monarch of the glade, and of such age that the twisted roots of pines not far from a century old were straddled athwart their trunks, and which had evidently sprung into life since the fall of the older tree. We thus estimated the age of several fallen cedars, which must have been growing centuries before Columbus discovered the continent. The soil over which we were passing was a rich loam, extending to an unknown depth, and the face of the country slightly undulating, not unlike the surface of the Pacific still heaving with the long swells of a past tempest. Occasionally, in the deepest of these dells, appeared a growth of oak or myrtle, among whose more extended foliage the sunlight glimmered in fine contrast to the darkening woods around; but every tree grew straight upward, as if shunning the deep shadows below, and following their instincts by stretching out their arms toward the only point where sun and blue sky were visible. As we got deeper into the timber we gradually ceased conversation, and each, occupied with his own thoughts, was speculating, perhaps, upon the probable time when the advance of civilization should sweep away this cloud of foliage, when we came suddenly upon a large tree lately fallen across the trail, its broken limbs piled high before us, and offering an impassable barrier to our further progress.

An impenetrable growth of thickly-matted bushes prevented our tracing the trunk to the stump, and thus regaining the path on the opposite side, while toward the left the path, having been cut along the edge of a steep glade filled with young myrtle and hemlocks, gave little encouragement for our passage by that route. While we were calculating the chances of forcing a way through to the right, H——, who had ever prided himself upon his woodcraft, discovered a newly-made path to the left, which he at once pronounced to be the track of two horsemen whom our hostess at Randolph informed us had gone to Goos Bay some days before. "It is evident," said he, with a peculiar logical accent common to most professional men — "it is evident that this tree has fallen previous to the passage of these two men, and, depend upon it, we shall come out right if we follow their trail."

H—— was generally right in his conclusions, and as this appeared a reasonable one, and none better suggested itself, we spurred the unwilling horses down the descent, slowly breaking our way through the thick bushes, and following as near as possible the direction of the road. We were soon at fault, however, as the opening disappeared after a few yards, and my companion, who was in front, had just signified his intention of retracing our steps, when his horse suddenly started, and with a snort of terror, reared into the air, and plunging up the hill at a pace which de-

fled the impediments of bush or briars, dashed into the road, and back in the direction of Randolph, H—— shouting,

"Good G——d, see that bear! Whoa! Look out! Whoa, boy! Look out for yourself, W——! he's coming this way!"

The whole occurred so quickly, that before I could collect my thoughts my horse had sprung up the hill, and now the animals, somewhat removed from the immediate vicinity of his bearship, stood facing the jungle, and with nostrils distended and ears erect, stared wildly at the spot where Bruin had been seen.

Neither of us were bear-hunters or trappers, and as little acquainted with the method of attacking so formidable an animal as any good citizens alone in an Oregon forest. In the few bear stories I could recall at the moment, the main feature which presented itself to my recollection was climbing a tree, but the enormous trunks around offered very dubious facilities for such an operation.

"Now then," said H——, "we must pass that tree, and how to avoid a fight is the question. I'd certainly rather retrace our steps than hazard a pistol battle with the monster I just saw."

For my part I had not yet seen the enemy, and with my rifle ready in my hand, was wondering where he would next make his appearance, when the crackling of the bushes showed that he was on the move. With eyes fixed upon the copse, we awaited his appearance. Luckily, however, Bruin was as little disposed for a battle as ourselves, and probably overrating our forces, made his way out above us, and disappeared in the woods.

By noon we had penetrated fourteen miles into the forest, sometimes crossing elk and bear trails, now cantering along an even tract of country bereft of shrubbery, and overshadowed by the same huge trees, or plodding slowly through green copses of underbrush, the vines clambering up the mighty trunks, hanging in long green festoons from the branches, and forming natural arbors through which the path was barely discernible. A small log-hut, erected in an open space, and nearly in ruins, is known as the "Half-way House," and is the only sign of civilization along the route. Here we dismounted, and tying our horses by their *riattas*, allowed them to nibble awhile at the grass, while we attacked the whortleberries, hanging in profuse clusters upon the bushes.

We were a month too late for the blackberries, the vines of which spread in all directions, and showed traces of the visits of numerous beasts, who are decidedly epicures in their taste for fruit. Here we began to discover evidences of the great coal deposits, which are eventually to make this section of Oregon the Newcastle of the Pacific, and as effectually terminate the importation of that article around Cape Horn as has already nearly been done with flour.

Remounting, we struggled along through the labyrinth of trunks, until at sundown a slight rise in the ground gave us a glimpse of daylight through the forest. A citizen of Empire City suddenly appeared, and paused aghast in his route at the sight of two strangers. The grip on his trusty rifle was a little tightened as we approached, but seeing we were immigrants, and probably not connected with any of the local issue of the Coos Bay country, he shouted

"Dern my skin, but when I beered the brush a-crackin', I thought I had ketched that cow at last. How are ye, strangers—bound to Coos!"

We replied, and after a brief interchange of news, we pursued our way. He pointed out, as we parted, the graves of five children who had been crushed by the falling of a tree some twelve months before.

After the discovery of the coal deposits, there was "a rush" of some twenty families to the mineral region, most of whom cleared and claimed, under the law of 1847, six hundred and forty acres of land each. To avoid the danger of falling trees, it is necessary to burn and fell all suspicious ones within a few hundred yards of the dwelling. One night the father heard an ominous crackling in the direction of a giant pine which had been steadily consuming under the action of fire for a week past. The family was asleep, but like lightning the danger flashed upon the settler, and arousing his wife, they seized two of the children, and hurried the bewildered little flock into the night air. But the warning had come too late. As they issued from the hut, the tree—a monstrous pillar of wood, little lower than the cross of Trinity Church in New York—toppled from its centre and fell to the earth. The cabin was directly in a line with its descent, and was smashed to atoms. A little mound, over which clamber a few blackberry vines, marks the lonely grave.

As we neared the edge of the forest, the regular strokes of an ax resounding in echoes through the shadowy silence, showed we were nearing our place of destination. The horses, now quite worn down with the wearisome route, pricked up their ears at the sound, and quickened their pace, we issued from the woods upon the banks of a beautiful and spacious bay, stretching some three miles directly beyond us, and about five to the right and left. The surrounding woods were clearly depicted in its glassy surface, while the swelling tide swept nobly up to the spot where we stood. It was the famous Coos Bay, of which some indistinct accounts had reached San Francisco, but which, passed over in the reconnaissance of the United States Coast Survey, had remained unexplored and almost unknown. Indeed, no maps or charts, save the one afterward made by myself from rough sketches, exist of this fine sheet of water.

To the right lay the little town of Empire City—every collection of dwellings in Oregon and California is a city—composed of some thirty houses, mostly of boards, and from the midst of which a half-finished wharf projected into the bay. A hasty glance at the scene sufficed; for our animals were already gazing wistfully at the place, with visions of corn or barley, doubtless, rising in the dim perspective. So with as brisk a gait as we could assume, we entered the town—the entire population completely electrified by our arrival, and crowding around us as curious specimens of humanity, which, in truth, we were.

Our friend, Mr. Rogers, hastened out to meet us; and, rescuing his visitors from the crowd, hurried us into his store, where we were not long in making ourselves at home.

Behold us now before a crackling fire of pine knots, alternately sipping the contents of a copious bowl of whisky-punch—and such whisky, shade of Bacchus!—and detailing to the attentive listeners the news from "Frisco," as San Francisco is here familiarly termed. The mail

facilities between Coos Bay and the great commercial metropolis of the Pacific are extremely uncertain and by no means regular, so our arrival was a matter of the greatest moment.

Mr. Rogers' store is the commercial and political head-quarters of Coos Bay. The stout proprietor himself, a rosy-cheeked, educated Vermonter, has held some of the most important offices in the gift of the people, and his hearty manners and good natured laugh have won for him the reputation of the most popular man at Coos. The store is the resort of the inhabitants for many miles around on Sundays; when, seated on the counter, they discuss the most important topics, and select goods from the assortment of our host. A glance around the shelves revealed the extent of his stock, which, as a racy informant remarked in answer to my look of inquiry, consisted of "green groceries"—i. e., black thread and vinegar!

As the fire lighted up the interior of the rough dwelling, and brought into bold relief the stalwart forms of men whose tastes and occupations had led them into this corner of the world for a livelihood, it was difficult to realize that four years ago the bare existence of such a place as Coos Bay was unknown.

The evening wore away with songs and stories; jolly great pipes of tobacco, black as "sooty Acheron," were smoked and refilled; more logs were piled upon the fire, and rough jokes flew around the merry circle. At last, weary with the ride, and perhaps a little overcome by the hospitality of our entertainers, we were shown to a species of shed, the sign over the door of which read thus:

"Pioneer Hotel — Donuts — Wom Meets,"

and denoted the sole public house of Empire City. Here we addressed ourselves to sleep, and, after a round twelve hours, came out on the following day, brisk as larks and prepared to see the lions.

Coos Bay is about twenty miles in length and from three to four in width. It is entered from the ocean—or, rather, the ocean discharges into it, as the inhabitants affirm—by a narrow channel, perhaps half mile wide from land to land. The navigation is somewhat intricate, but not dangerous. There is depth of water for vessels loaded to ten or twelve feet, and numerous cargoes of coal have been taken to San Francisco—a distance of about four hundred miles. The mines are some twenty miles from the bar or entrance, and facilities already exist for the rapid loading of vessels. The coal, which extends over a country some thirty miles by twenty, is abundant, accessible, and of good quality. As yet only a few banks have been opened.

During our four months' stay at Coos and vicinity, we took frequent advantage of the numerous offers of our acquaintance to make excursions across and up the bay—sometimes to join in the excitement of the chase, salmon-fishing, or surveying the interesting country about us. The scenery around the bay is made up of deep, silent pine and fir forests, often relieved with the gayer-tinted foliage of the birch and maple. Toward the ocean, where the northwest winds prevailing in the summer

months have heaped up symmetrical mounds of sand, all traces of vegetation disappear, and a desolate expanse of white mingles in the horizon with the blue line of the sea. An incessant roar, mellowed by the distance into a hoarse murmur, marks where the surf chafes among the rocks skirting the entrance to the bay.

Days and weeks may pass away, and if you go beyond the small circle of civilization around the town, you will meet with no living thing but the passive Indian squaw dragging her load of fish to the cabin, or some startled wild beast, quickly darting out of sight into the depth of the woods.

Early one morning I was roused out by appointment, to join in a tramp to the South Heads in search of otter. This trade has already assumed an importance among the whites of Lower Oregon, who purchase these and other peltries of the Indians. We made a party of three, and taking a narrow path, which to me became utterly lost in five minutes, we were soon traversing a dense mass of woods, in which the crinkling of our steps among the leaves were the only disturbing sounds. An hour's walk brought us out upon the coast, which here makes into numerous tiny inlets and bayous, formed by the large rocks around, and among which the sea lashes with resistless fury. Beyond us the surf made out in high successive banks of foam, any one of which would have proved the death-warrant of the stoutest ship afloat. A stiff breeze blew from seaward, and as the roaring walls of water toppled inland before the increasing gale, I could scarcely imagine how otter or any other living creature could be shot, much less captured in such wild commotion.

My companions, among whom was an Indian known as Chu-wally, bid me have my rifle in readiness. Cautiously descending toward a battlement of dripping rocks, serving to break the force of the sea, but still streaming with thousands of milk-white rivulets of foam, we halted, while Chu-wally, stripping himself to the buff, crawled to the ledge and looked over into the little calm space of water under the lee of the rocks. For some moments he remained motionless, and then, without changing his position, raised his hand in signal to us. "Down! close down!" whispered Billy Romanes, the best rifle-shot in the country, as we moved silently toward the spot. Slowly we crept up the steep crags, the booming surf wetting us to the skin as we ascended.

We reached the summit, and peering over the brink, gazed down upon four beautiful otter sporting in the little nook beneath. A single unguarded motion would have alarmed these timid creatures, and the utmost caution was necessary; for while the deafening roar of the ocean is a noise they are accustomed to, the click of a lock, or the bungling hitting of a rifle-stock against a rock, sends them out of sight in an instant. There were apparently two old females, each with a young one, though the difference in size was scarcely perceptible to a novice. At times, in the long smooth swell of the cove, they would gracefully throw their entire forms out of the water; but this is rare, and the hunter is only too glad to get a moment's sight at the head above the surface. These appeared to be in a frolicsome mood, chasing each other about, now swimming rapidly on their backs, and disappearing to shoot up again in another

moment. We lay perfectly quiet until both could bring our rifles to bear, when, as the two appeared together, they received our fire. Simultaneously with the flash of our rifles they disappeared, but leaving a streak of blood to prove the accuracy of one or both of us.

After a few moments, we were gratified to observe one of them floating dead upon the water, and scarcely had we reloaded when a second, badly wounded, showed his head; both fired, and the game was our own, and Chu-walla plunged in and dragged them successively to the shore. They were of the silver-gray species, the most valuable fur, except that of the marten, taken in this section of Oregon, and worth, in San Francisco about \$35 each. We soon had them skinned, and throwing away the flesh, which is unfit for eating, we trudged homeward, quite satisfied with our good fortune. These furs, which, when dressed, are extremely beautiful and soft, are fast becoming rare and more valuable. The Chinese in San Francisco pay the highest price for them for shipment to the celestial regions, furs being a mark of dignity and power in China.

On the smooth ocean beach the marksmen of Oregon sometimes shoot the otter through the surf. As the bank of water moves majestically toward the shore, the otter, who understands better than all other animals how to maneuver in the breakers, spreads himself flat on the outer or seaward side, and moves rapidly into the land. His form is plainly visible through the thin water, as through a plate of glass. The hunter stands beyond the force of the surf, and when the game has been borne to within rifle shot, the unerring bullet cuts through the transparent element, and it is rarely that the shot is not rewarded with the much-coveted prize. The land otter has a smaller and less valuable fur, and, like the beaver, is often taken in traps on the Coquille, Umpqua, and Rogue rivers. The rifle, however, that unfailing reliance of the frontiersman, is the common weapon used against the entire brute creation in Oregon.

The world offers no better hunting-grounds than these wild woods of the north. Here are found a variety of deer, and the brown and black bear (the grizzly is not seen north of the California line). The stately elk, with such antlers as the hunters of the Eastern States have no conception of, runs in bands of hundreds in the interior; the black, gray, and white wolf, and the numberless little delicately furred creatures who are made to contribute their soft coverings to the rich robes now so fashionable in the Northern United States, are all found in this region.

In mid-winter, when the huntsman plods his way amidst the world of pines, bending their lofty tops beneath a continuous roof of snow, the muffled echo of a rifle will sometimes indicate the presence of man, when no other sound than the hungry howl of the wolf, or the sudden rush of the elk, disturbs the silence. Let the wanderer issue from the forest, and climbing the nearest hill, gaze through the rarified atmosphere toward the north. If he is beyond the Sciuslaw, he will see a blue cone far away, rising into the clouds, and traced in feathery outline against the sky. It is Mount Hood, the fourth loftiest peak in the world. Apparently near by, but yet weary days' travel apart, as the traveler will find, should he make the journey, stand two others, Adams and Jefferson. At early dawn these huge landmarks present a deep indigo color; but as

the ascending sun flashes against their steep declivities, the blue suddenly changes into a glitter of eternal ice, white as a glacier, and of all spectacles in the great north the most splendid. But let not my unworthy pen desecrate these grand old mountains with an attempt at description. Descend we again to the game.

Partridges, quails, woodcocks, or prairie hens have never yet been seen, but the clouds of curlew, snipe, teal ducks, and geese, greedily feeding along the marshes and river banks, are incredible. Some sportsmen deny the existence of the canvas-back duck on the Pacific coast; but the *punt loads* which our party slaughtered last winter would soon convince them of their error.

The Indians of this section of country are by no means the fierce and warlike race found further to the northward in Upper Oregon and Washington Territory. Although viciously disposed, they have long since learned to estimate the character of the whites at its proper value. Under the protection or rule of the Indian agents, they are furnished with a certain amount of blankets and food throughout the year, and from their association with the whites, have lost much of their savage ferocity.

An Indian dance or merry-making having been announced near the bay, the whole available population turned out to "assist" at it. Entering an open space in the woods toward midnight, we found about thirty braves and squaws gathered around an immense fire of pine logs, the flames from which lit up their grotesque accoutrements and hideously painted faces, while the surrounding forest, echoing their monotonous chants, was dimly illumined with the red glare. For a space of twenty yards around the fire the scene was a blaze of light, but from that point the woods receded into an impenetrable gloom. We dismounted, and fastening our horses to the limbs, entered at once among them. Here an old squaw, whose leathern hide, naked from the waist up, lay like the folds of oiled parchment over her attenuated form, sat rocking herself to and fro, mumbling an indescribable jargon. She was stone blind. There a bevy of young ones, tattooed and bedaubed beyond all description, joined their voices to a jumping, jolting dance, hand in hand, back and forth toward and away from the fire. Beyond, were seated as near to the flames as the heat would allow, a row of Indians all fantastically dressed, beating time to the chant with sticks, which they held crossways in their hands, and at given signals rattled nervously together.

Several old chiefs seemed to act as leaders in the festivities, and at their signal a wild, unearthly yell arose, which, but for the presence of my companions, I might easily have construed into a war-whoop. All were in motion; rocking, dancing, jumping, or stepping, in uncouth gait, to the time of the music or chant. Perspiration flowed in streams, and the decidedly careless display of female animated nature would have driven less interested, and perhaps more scrupulous, spectators than ourselves from the scene. As the flames roared their chorus with the hideous noise of these creatures, it seemed like a dance of fiends incarnate in some orgy of Pandemonium. Hanging up in elongated wicker-baskets, so closely woven as to be water-proof, were some dozen papooses strapped

to the straight back of these portable cradles, and nothing but the head of the little imps visible from among the firs and durt.

An Indian burial is scarcely a less remarkable scene. Formerly the body was burned, and the wife of the corpse killed and interred with the body. This, and numerous other like horrible practices, have been summarily abolished by the settlers. When one of the community begins to show signs of dissolution (which is usually hastened by the sweating or other sanitary process to which the sick are submitted), the whole tribe commences a terrible ontery, which generally lasts through the dying agony of the sufferer. The body is then stretched upon the ground and sprinkled with sand and the ashes of sea-weed or kelp. The legs are forcibly doubled up toward the head, and the ankles tied as closely as the rigidity of the corpse will permit, to the neck. The relatives of the deceased shave their heads and place the hair upon the body—thus rolled into a heap—together with some shells and nutritive roots for the dead to subsist upon. The body is then lowered into the grave, which is made of a length to accommodate the diminution of size to which the defunct has been submitted. The earth being thrown in, the whole tribe jump alternately upon it until the ground becomes quite solid. The baskets, clothing, spears, and all personal property, is formed into a heap, packed upon the grave, and covered securely with sticks and stones. With a chief, the ceremonies are more impressive and lengthy.

The wolf of Southern Oregon is the fiercest animal—not even excepting the bear—to be found in the country. These prowling fellows, when driven to extremities, will approach a herd of cattle, and a band of three or four spring upon a cow, and in a short time completely devour the victim. The white wolf, which is considered the most dangerous, is about five feet in length, and nearly as high as a yearling calf. The strength and ferocity of this beast is wonderful, and many a mortal struggle has occurred between the wounded white wolf and the hunters. On two occasions, while at Coos Bay, we heard of the depredations of wolves, and joining parties to start in chase, were disappointed by the incredible cunning which seems to guide them from all pursuit. Once a party of four left Empire City, in a small sail-boat, for Wappalo, or Isthmus Creek, in the upper part of the bay, where two large wolves had been seen for several days.

With plenty of provisions and ammunition, we shot away from the wharf, and, giving the sail to the wind, were soon scudding "like mad" before a staggering westerly breeze, rapidly passing the wood-crowned headlands, and awakening the echoes with an occasional rifle-report, at which some doomed pelican or eagle came tumbling from their proud elevation. Arrived "at point proposed," we found a couple of friends awaiting us, and swelling our number to six. The chase lasted all night, but was unsuccessful. We had just seated ourselves under an immense pine, and had commenced an assault upon the eatables with all the earnest vigor of hungry men, when F—, one of the best hunters in the bay, suddenly sprang up and whispered, "Silence!" But we needed no such admonition, for already the ground began to tremble beneath us with the tread of an approaching band of elk. Quick as thought we had

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dispersed to a distance of two hundred yards apart, and, squatting low in the underbrush, had scarcely time to breathe free before the low growth of trees toward the mountains separated, and the form of a noble elk appeared, advancing proudly toward the stream we had just left. He stopped as he thrust his head from among the leaves, snuffed and stamped impatiently, and evidently smelt danger; but he had already passed our most distant outpost, and to return was equally hazardous. With daintily lifted feet and nose protruded he brushed past, and in another moment was followed by a herd, one, two, six, ten—it was impossible to count them. I had determined to await the signal of F——'s shot, and had my own target singled out when the sharp ring of a rifle awoke the forest echoes. The herd started and dashed past the ambush, while the woods resounded with five reports in quick succession. Like light the beautiful animals vanished, but with the thundering tread of a troop of cavalry. Two of their number lay plunging on the earth, and a third, grievously wounded, was making a succession of agonizing springs to follow in the path of his companions. Another shot brought him down, and now dispatching the others, we felt that at least our wolf-hunt had not been in vain.

My companions had promised me a shot at an elk, but even they had not anticipated such luck. The meat was soon packed to the boat, and at midnight we were again in Empire City.

Marsh-bird shooting is mere slaughter, though J—— was "innocent of duck blood" to the last. We once loaded a boat with water-fowl, the result of but two hours' shooting. Starting at early dawn, we sailed rapidly toward a creek extending several miles inland from the bay, and reaching its head-waters, drifted leisurely down. The stream, some two hundred yards wide, dimly reflected in its bosom the sombre shadows of the pines and furs skirting its margin. An intense silence reigned. The cry of the sedate crane, as he stood "knee-deep" in some shallow pool watching patiently for his prey, or the quick twir-r-r of a flock of blue-winged teal or mallard cutting hurriedly through the air, and settling quietly upon some reedy shore below, alone disturbed the stillness. We landed on a grassy meadow, and leaving one in the boat to follow the stream, the others occupied the space between the two lines of woods. The first shot fired rolled with a thousand echoes through the forest, and in a moment arose ten thousand winged creatures from the "plashy brink" of creek and bayou, embracing every style of marsh bird and duck that can be mentioned. With every discharge these flights from place to place continued. At times they would settle down in our immediate vicinity, and apparently offer themselves voluntary sacrifices. Unable, owing to their low flight, to pass beyond the woods guarding the banks, they followed the line of water, and never failed to pass over the ambush below. We only ceased this "pot hunting" when, weary of the slaughter, we found our boat loaded with game.

The hunters in this vicinity seldom use the shot-gun, and consider such shooting as the above quite unworthy the waste of powder.

For some weeks previous to Christmas great preparations had been made for the observance of that time-honored anniversary. Now, in

Oregon, where people reside ten miles apart, and call a man neighbor who lives half a day's journey away, it is not so easy to make up a fashionable party, for sundry reasons, as in Fifth Avenue, or any other of the "close settlements" in New York. If a hop is to take place, weeks must be given to prepare in; the "store clothes" taken out, aired and brushed, old bonnets refurbished up, horses driven in from distant pasture, and saddles made ready. Then the nearest settlement must be applied to for a proper amount of whisky and sugar, raisins and flour. But, on the occasion above alluded to, great efforts were made to have matters go off with *éclat*. Deacon L——, residing on the ocean beach, about twenty miles to the southward of Coos Bay, and known as the most liberal, warm-hearted old gentleman of South Oregon, had appropriated, some time in advance, the right to give the Christmas ball. It was to last two days and two nights. Oceans of whisky, hills of venison and beef, no end of pies and "sech like." The ladies of all Coos county were to be there, and a fiddler from the distant point of Port Orford itself engaged. To this feast did all hands look forward with secret longing and hope. Two days before hand the exodus for Deacon L——'s began to take place, and among the invited guests were the two "Frisco chaps," i. e., H—— and myself. And on Christmas eve the ball commenced. There were gay roystering blades from Port Orford, gallants from Coos Bay, select men and distinguished individuals from all over the country, and belles from every where. Such a *recherché* affair had not occurred since the settlement of the territory. For two nights and days the festivities continued; and, after all the dancing, riding, drinking, singing and laughing — and all this without sleeping, and with a determination to "never give up" — there were buxom forms and brilliant eyes that dared us to another break-down!

I snap my finger at all civilized Miss Nancys, henceforth and forever. Give me, for the essence of fun and the physical ability to carry it out, a corn-fed, rosy-cheeked, bouncing Oregon lass, with eyes bright as the rivers that sparkle merrily on their way to the sea from those snow-clad mountains, and hearts light as the fresh breezes of that northern climate! I may forget the Central American excitement; sooner or later I shall have forgotten the birth of an heir to the French throne; the siege of Sebastopol may fade away, but that Oregon ball will be ever fresh in my memory.

On recovering from this, we had made up our minds to start for California; but one day, while firing at a target — the same being a tenpenny nail driven half way to the head in a pine-tree — a long, lanky Missourian informed me that a whale had drifted ashore near the Heads, and that the Indians, agreeably to their custom, had commenced devouring him.

"That's very extraordinary," said I.

"Wall, hoss," replied my informant, "jest you mount and ride thar, and ef you don't see 'em eatin' that thar leetle fish, thar's no snakes;" and his nostrils dilated with anger at my look of incredulity.

So we mounted and rode, and after an hour's scamper along a level ocean coast, a vile smell began to demonstrate the truth of at least one part of my friend's information. At a distance, and forming a hillock on

the white beach, lay an unwieldy mass of something, around which we could see at least a hundred Indians hastening from place to place. We clapped spurs to the horses, and arriving at the spot, found a scene which I almost despair of depicting. The whale, which I believe was a large "Humpback," had, as is often the case on this coast, got into shallow water, and in his struggles and alarm presenting his body broadside on, had been rolled by the mighty surf high up the beach, like a cask or log of wood. He must have laid there some time, as the air was a putrid stench, such as I hope never again to inhale. The huge creature lay on his side, and the sand had already buried a portion of the carcass so as to render it immovable. The surf at high-water had broken entirely over it, but now there remained a considerable space of bare beach outside.

This space, and the ground for twenty yards around, was occupied by the Indians, who seemed to consider this some special dispensation of the Great Spirit in their behalf. A deafening row disputed the possession of the air with the stench. Nearly all were naked, and attacking the whale like ants. Here appeared a little pot-bellied child, whose limbs seemed scarcely capable of sustaining the swelling paunch that overtopped them, staggering up the beach with an armful of putrid blubber, the oily substance trickling down over his little body in a hundred glistening streams; there a lusty fellow with a knife, carving away as for dear life — dissecting the huge subject before him — cutting his way into the interior. Farther on are two squaws, fighting for the proprietary right to a square chunk of whale, in shape something like a cake of ice as sold in New York, the said chunk coated with sand half an inch thick, as the delicious morsel has been rolled about in the squabble. Beyond, an old creature has overburdened herself with the treasures of the deep, and in pure exhaustion, decides to rest awhile, seated upon the jealously guarded prize. Still another group represents the Laocoon, the father and sons being three members of a family, and the avenging serpent a long string of unctuous blubber, under and with which they are struggling up the beach. Every body is busy. Even the chiefs have thrown aside their dignity in the excitement of the moment, and join the general assault.

We proceeded up the beach to where some fires were burning, near a few temporary huts. Here several women were roasting the fish, which they devoured apparently before it was well warmed through. No air in England ever produced, in proportion, a greater noise. My companion said they would stick by the wreck until not a plank (nautically speaking) remained, when, gorged with marine matter, they would take to the mountains, and diet on berries and young hornets. I saw the latter cooked and eaten, which is done in the following manner: A hornet or wasp's nest, perforated, as usual, with hundreds of little cells, where the young are deposited, is obtained from the hollow of some decayed tree, where they are easily found. My lady Squaw brings this cake, which is here nearly a foot in diameter, to the fire, and deliberately roasts the juvenile occupants of the cells alive. She concludes by turning the cake upside down, patting it briskly on the back, and eating the

baked tenants like whortleberries as they tumble out! This is considered an excellent corrective after over-indulgence in blubber. Pike, who spoke the jargon, attempted to get into conversation with some of these Indians, but they only replied with gestures. The occasion of a whale ashore was too rare and momentous for frivolous discussion.

The salmon fisheries of Oregon are yet scarcely known. Even in San Francisco, where the resources of the Pacific coast should be well understood, there seems to be but little attention given to the subject. There are two "runs" of salmon every year in all the rivers and bays of Oregon from the Chetkoe to the Umpqua inclusive. But one attempt has been made in Oregon to use the seine, which was on Rogue River. With imperfect apparatus and every disadvantage to work against, above five thousand of these fish were hauled from the river in two days, with the assistance of the Indians. These were packed with refuse salt, and in so hurried a manner that the fish were not cured, hence the statement, believed by many intelligent persons, that salmon can not be salted on the shores of the Pacific coast, owing to certain atmospheric causes. The English, however, with a better knowledge of affairs, have already sent two full cargoes from Vancouver's Island to China, for the salmon are found as far north as the Russian Possessions. These form the chief article of food for the Indians in Coos Bay as well as on the entire coast, and their method of catching them with hooks and spears is often an interesting spectacle.

I had intimated to my friend, Mr. Rogers, my desire to witness a torchlight salmon excursion, and, with his usual courtesy, he organized an expedition for my special benefit. The Indians collected at a point a mile below Empire City, and were nearly one entire day making their preparations. The canoes were first cleaned out and furnished with a barbed spear of wood tipped with iron or glass. A pile of pitch-pine knots were also placed in each, and other arrangements made, the nature of which I did not understand. Determined to see the whole performance, I embarked in a frail affair—a species of dug-out—having for my crew an old squaw, whose bleared eyes and skinny, wrinkled hideousness, illumined with the glare of the torch she had stuck in the bow of the canoe, reminded me of the gaunt features of some foul witch from regions damned. But I soon found that my female Charon was not to be despised, for she plied her paddle with dexterity of a—for aught I know—century's experience. We soon reached a little bend in the bay where the fleet was congregated, and the sport commenced.

The operation was simple enough. Each canoe contained two persons, a squaw squatting in the stern to take the fish from the spear and replenish the fire; and an Indian, who, from the bows, darted his weapon with absolute certainty at the fish. The light of the fire seemed to possess some attraction for the finny denizens of the bay; for as the glare passed along the surface of the water, they would dart upward toward it and become the sure prey of the spearsman. In a trice, the drumming of captured salmon was heard from a dozen boats, and my crew became so excited thereat that she nearly threw me out of the cockle-shell in gasping and screaming to her grandson, who was not displaying any

remarkable dexterity on that night. The cold was severe, my hands and feet were soon benumbed, and yet this apparently bloodless old creature, almost naked, showed no signs of suffering.

The scene was one of the most remarkable I ever witnessed, and but for the cold would have been superb. At my request the squaw paddled me alongside of a canoe, the proprietor of which lent me his spear; but though he pointed out dozens of salmon, some of them glorious fellows, three feet long, my unpracticed hand met with no success.

In an hour the novelty of the thing had passed, and I gave the signal to return. There were about five hundred fish taken in at that time.

Another method is to use the common fish-hook. The fleet of canoes start for some favorable locality, where the bight of the land leaves the water free from the action of the current, and the surface is speedily covered with dozens of little reels, on each of which are wound about ten yards of line. There are generally about half a dozen hooks attached to the end, which are allowed to hang from ten to twelve feet below the surface, being suspended at that gauge by a float. The salmon bite greedily at the bait, and swim away, unwinding the line as they go. The reel spins around with great velocity, which is the signal for the proprietor to paddle up, haul in the captive, and administer a stunning tap on the head with a small stick provided for that purpose. There are often a dozen canoes engaged at once in this fishery—all gliding swiftly about, and more than busily engaged by the rapidity of the bites. These salmon are, beyond comparison, the most delicious in the world, even surpassing the famous ones taken in the Sacramento river in California.

The coal deposits of Coos Bay would require more space than could be devoted to them within the limits of these pages. A report, recently published by myself in San Francisco, contains the outlines of what will doubtless become hereafter widely discussed. That the importation of coal to California *via* Cape Horn, from Europe and the Eastern States, must eventually cease, few who are acquainted with the facts will deny. A space of country about the size of Rhode Island is a solid bed of coal, outcropping wherever a ravine or bank occurs. The veins are from six to ten feet thick. The coal has been repeatedly and satisfactorily tested, and proved to be well adapted to steamship purposes. It is in quality not unlike the Scotch cannel, but lighter, and when unmixed with foreign substances, burns to clear red ashes. But these are only a few of the boundless treasures of the unexplored regions of the Pacific, and which, as the country becomes populated, are destined to teach the inhabitants of the extreme West to rely on their own resources. California and Oregon produce nearly every article necessary to the comfort and subsistence of man, and it needs but the construction of the great avenue of population—the national railroad—to bring the country to the pinnacle of greatness and wealth. Shall we live to see it built?"

AMERICAN DESERT

In the summer of 1848, Lient. Brewerton, of the army, made a trip from California over the mountains and through the Great American Desert. The starting point was Los Angeles, on the Pacific coast, some five hundred miles south of San Francisco. At this point Brewerton was joined by the celebrated Kit Carson, who was to be the guide and leader of the party. We abridge from Brewerton's narrative his description of the country through which he passed, and the incidents of the journey :

"The Pueblo de Los Angeles has a population of several hundred souls; and boasts a church, a padre, and three or four American shops; the streets are narrow, and the houses generally not over one story high, built of adobes, the roofs flat and covered with a composition of gravel mixed with a sort of mineral pitch, which the inhabitants say they find upon the sea-shore. This mode of roofing gives a perfectly water-proof covering, but has the rather unpleasant disadvantage of melting in warm weather, and in running down, fringes the sides of the building with long *pitchicles* (if we may be allowed to coin a word), thus giving to the houses an exceedingly grotesque appearance; when the heat is extreme, pools of pitch are formed upon the ground. The adobe is a brick, made of clay, and baked in the sun. Walls built of this material, from the great thickness necessary to secure strength, are warmer in the winter, and cooler in the summer, and are therefore better adapted to the climate than either wood or ordinary brick. In most respects, the town differs but little from other Mexican villages.

Just as I was beginning to weary of the comparatively idle life which we were leading, a friend informed me that Carson had arrived, and would shortly join our party at the mess-room. The name of this celebrated mountaineer had become in the ears of Americans residing in California a familiar household word; and I had frequently listened to wild tales of daring feats which he had performed. The narrators being oftentimes men noted for their immense powers of endurance, I had caught, almost insensibly, a portion of their enthusiasm, and loved to dwell upon the theme. It is scarcely wonderful, then, that I should in my mind's eye a quiet little studio of mine own, where I conjure up all sorts of fancies) not only sketch but, by degrees, fill up the details of a character which I thought must resemble the guide and companion of he adventurous Frémont. My astonishment therefore may better be conceived than described, when I turn both sides of the canvas to the reader, by drawing the picture as I had dreamed it out, and then endeavoring to portray the man as he really is.

The Kit Carson of my *imagination* was over six feet high—a sort of modern Hercules in his build—with an enormous beard, and a voice like a roused lion, whose talk was all of—

"Stirring incidents by flood and field."

The *real* Kit Carson I found to be a plain, simple, unostentatious man;

rather below the medium height, with brown, curling hair, little or no beard, and a voice as soft and gentle as a woman's. In fact, the hero of a hundred desperate encounters, whose life had been mostly spent amid wildernesses, where the white man is almost unknown, was one of Dame Nature's gentlemen—a sort of article which she gets up occasionally, but nowhere in better style than among the backwoods of America.

I will not attempt to sketch Kit's earlier life and adventures; Frémont has drawn him with a master's hand, and my inexperienced pen may no improve upon his description.

In making the foregoing remarks, I have only offered my humble testimonial to the sterling worth of a man, who I am proud to say, was my guide, companion, and friend, through some of the wildest regions ever traversed by the foot of man.

"Kit," as I shall often call him, informed me that he had made camp, at Bridge Creek, some fifteen miles distant from the Pueblo, on our road to the Great Pass, by which we purposed crossing the Californian mountains and entering into the solitudes of the Sandy Desert. This camp at Bridge Creek had been established by Carson with a view of preparing our animals (many of whom had seen hard service) for the long and tedious journey before them; and a better locality for our purposes could scarcely have been selected. Bridge Creek is a pretty little stream of clear, sweet water, fringed with trees, which afforded plenty of timber or our *corral*. On the plains, in its vicinity, the wild oats grew in luxuriant abundance, furnishing a rich pasturage. As Kit purposed taking up his residence in camp, a variety of reasons induced me to accompany him. For one thing, I had grown heartily tired of fleas, with which the houses in town are densely populated; and, in the second place, I wished to get an insight into the sort of gipsy-life which I must necessarily lead for some months to come. So, having concluded that an immediate commencement of my education in this respect would render its privations easier when the time of trial came, I provided myself with a tin-cup, which might hold about a quart, for no true mountaineer ever drinks less than that amount of coffee at a sitting—if he can get it. To these articles I added a common fork, a large bowie-knife, and a rifle;—and, thus, having furnished my table and armory, I turned my attention to the bed-chamber portion of the establishment. Here my preparations were equally simple and unpretending; two Mexican blankets serving me at once for mattress, sheets, and pillow-cases, while my saddle gave a rude, but never-failing pillow. Imagine me, then, fully equipped, and prepared to take up my abode under the first tree, if the good of the service should require it.

Late in the afternoon Carson and myself mounted a couple of stout mules, left the Pueblo behind us, and after three hours' riding over hills and dales so rich in flowers that it seemed as if nature had contemplated the manufacture of a patch-work quilt upon a grand scale, we reached the spot which was to be our abiding place for nearly a month. Here I found the men, twenty in number, who had been hired for the expedition, all busily employed in taking care of our large *caballada* of mules and

horses; many of these men were noted woodsmen, old companions of Carson's in his explorations with Frémont; while others, again, were almost as ignorant of mountain life as myself; knowing nothing of the mysteries of a pack-saddle, and keeping at a most respectful distance from the heels of a kicking mule.

Our daily routine of life while sojourning at Bridge Creek was certainly primitive in its simplicity. Shortly after sunrise the camp was awakened, the animals released from their confinement in the *corral*, and driven to water; from thence they were conveyed to the fields of wild oats, where each mule being secured by a long *réata* (a kind of strong Mexican rope made by twisting thongs of hide together) to an iron picket-pin driven into the ground, was permitted to graze until sunset, when the drove were again watered and secured in the corral for the night. The habits of the Californian mule are rather peculiar. Though very cautious animals when relying solely upon their own judgment—under which circumstances they generally get along very well—they would appear to have a consciousness of their own inferiority, which induces them to entertain a great regard for the sagacity of the horse, and particularly for that of a white mare. Now why the "gray mare" should be the "better horse" in their estimation, I can not say, but such is certainly the fact; and the wily Californians taking advantage of this amiable weakness, are in the habit of employing a steady old white mare of known gentleness and good character to act as a kind of mother and guide to each drove of unruly mules. This animal is sometimes called the "bell mare," from a large bell which they attach to her neck, to the tinklings of which, sooner or later, every mule in the *cuballada* becomes an obedient slave. In conformity with so excellent a custom, we had destined for this service an old gray mare belonging to one of our party; and I often amused an idle hour by watching the court paid her by the mulish crowd. To be allowed to graze in her immediate vicinity, was evidently considered a favor by every long-eared lady and gentleman in the herd; and to obtain this much coveted position, many was the quarrel, and many the spiteful bite and kick given and received. But the old mare, like a philosophical beast, as she was, looked upon all their attentions with scorn and indifference; or only noticed them, when annoyed by the tumult around her, by using both teeth and heels with wonderful dexterity, and showering her blows with great impartiality among her four-legged admirers.

For ourselves, we fished, hunted, and practiced rifle-shooting (in which latter accomplishment many of the mountaineers are almost incredibly expert); and when the evening had fairly set in, and the round bright moon peeped slyly down through the trees, we gathered round our fire in the open air, with the blue heavens and broad spreading branches for our canopy, and with these, with songs and stories not the less interesting for being real, and in many cases the personal adventures of their narrators, we whiled away the hours so pleasantly that it was often midnight before we spread our blankets, and laid down to sleep more soundly, and dream more sweetly, than many a man who reclines upon a couch of down.

It was finally determined that we should take the road, upon the 4th of May; and having procured four stout mules, already experienced in mountain travel, from the Quartermaster at "Los Angeles" (two for riding, and the same number to pack my baggage and provisions), I purchased, after much bargaining, and many serious misgivings that I had been sorely cheated, two additional mules and one horse; which latter proved to be an animal of terrible experiences, being troubled with some internal complaint, which induced him to lie down whenever his rider particularly wished him to stand up. I finally thought that he found hydropathic treatment beneficial, as he seldom crossed a stream without rolling himself and rider in the water. Having thus got together seven animals, I concluded that so far as horse-flesh was concerned I should do well enough; but where to procure a proper servant, or *arriero*, as they are called in Mexico, to pack my mules, and take charge of the cooking, was a problem which seemed more than I could solve; at last, just as I was beginning to despair, fortune appeared to favor me, and a Mexican presented himself as a candidate for the office of cook, muleteer, and a man of all work. A single glance at Señor Jesús García (I will give only two of his half a dozen names), convinced me that whatever other qualifications he might exhibit, he was certainly old, ugly, and possessed of a most villainous cast of countenance. But as it was a sort of last chance with me I was fain to receive him graciously, and after asking a few questions to which Señor Jesús replied with all the volubility for which the Mexicans are famous, I felt fully satisfied that—if one were to believe his own account of his manifold perfections, both as a man and as a muleteer—there had never existed such a paragon of virtue and skill. He could pack a mule in the twinkling of an eye, lasso and ride the wildest horse that ever ran, and as for honesty "El Teniente might load him with bags of uncounted doubloons and he would not steal a single medio."

On the 2nd of May we broke up our camp on the Creek, and returned to Los Angeles, from which point we purposed starting on the morning of the 4th. In the interval we employed ourselves in making our final preparations; drawing rations and ammunition for our men, and dividing our provisions into bags of equal size and weight for the greater convenience of packing. The stores provided for our own mess (which had been increased to four in number by the addition of an old man, a friend of Carson's, and a citizen returning to the States); consisted of pork, coffee, brown sugar, "Penole," and "Atole."

The two articles last named are peculiarly Mexican, and worthy of a description. Atole is a kind of meal which when prepared forms a very nutritious dish not unlike "mush," both in taste and appearance. Penole is made by parching Indian corn; then grinding it, and mixing it with cinnamon and sugar. This condiment is almost invaluable to the travelers in the wilderness of the far West; as it requires no fire to cook it, being prepared at a moment's warning by simply mixing it with cold water. It has the further advantage of occupying but little space in proportion to its weight; but when prepared for use, it swells so as nearly to double in quantity. A very small portion is therefore sufficient

to satisfy the cravings of hunger. In addition to these matters, we carried with us for our private consumption a small quantity of dried meat, this is also obtained from the Mexicans, who cut the beef into long strips and then hang it upon a line, exposing it to the influence of the sun and wind until it is thoroughly hardened. When they wish to employ a more rapid process, a rude framework is erected, and on this the strings of meat are laid, a slow fire being kept up underneath until the whole becomes smoked and dried. Beef prepared in this way will keep for a long time, and is generally sold by the Mexican *vara* or yard.

The morning of the 4th of May at length dawned upon us; and although we were all up with the sun, nine o'clock found our camp in a state of terrible confusion. I had already stated that some of our party were inexperienced hands; and as packing a mule is not always a thing to be learned by intuition, they certainly made an awkward commencement at their new business. I have since thought that it might have been amusing to an uninterested spectator to watch the quiet look of contempt with which our old stagers regarded some poor greenhorn who succeeded in getting the pack upon his mule's back, only to behold it kicked off by the indignant animal, who after performing this feat would turn round to the discomfited packer with a look that seemed to say, "Well, you haven't traveled, that's certain."

While others were thus annoyed, I was by no means exempt from my share of vexation; my pattern of a muleteer, Jesús, was nowhere to be found. That paragon of virtue had allowed himself to be seduced by a new pair of boots, and a trifle of clothing which he found in my carpet bag; and if he had not "sloped to Texas," he had at all events migrated to parts unknown; and there was I, at the last moment, with seven animals to be taken care of, packed, saddled, or driven, and not a soul to attend to them. Just as I was about giving up in good earnest, a young Mexican came up to me and requested that he might be allowed to fill the vacancy. Upon questioning him, Kit recognized him at once. "A greater rascal," said Carson, "I don't think ever lived than that same young Mexican, but he knows how to take care of a mule."

It seems that Juan, such being the name of my new applicant, had crossed the desert once before as a muleteer to an American trader; and to revenge himself for some ill treatment, real or fancied, he had cut holes in the provision bags, by which means their contents were lost upon the road, and both master and man reduced to the very verge of starvation before reaching the settlements. As I could do no better, I concluded to employ him, at the same time making a mental determination to keep a sharp eye upon Master Juan, and bring him up, nautically speaking, with a "round turn" upon the first occasion of transgression.

Juan being duly thus installed as my muleteer in chief, and cook in general, commenced operations *instantly*, by packing my mules with a celerity which fairly astonished me; for in a few moments the heavy loads were properly arranged, and my mule and his own were fairly saddled and bridled. It was fully ten o'clock before our party finally got off. We numbered twenty hired men, three citizens, and three Mexican

servants, besides Carson and myself, all well mounted and armed for the most part with "Whitney's rifle," a weapon which I can not too strongly recommend for every description of frontier service, from its great accuracy and little liability to get out of order — an important point in a country where no gunsmith can be found.

The order of our march, unless altered by circumstances, or some peculiar feature of the ground, was as follows: Kit and myself, with one or more of the party, came first, then followed the pack mules and loose animals, and in the rear the remainder of our men, who urged the mules forward by loud cries, and an occasional blow from the ends of their lariats. Our saddles were of the true Mexican pattern, wooden trees covered with leathers called *machecers*. This saddle for service I found far superior to those of American make, being easier and safer, the great depth of the seat rendering it almost impossible for the animal to dislodge his rider, a fact which partly accounts for the fearless horsemanship for which Mexicans are so famous. Our bridles, formed of twisted hide or horse hair, were ornamented with pieces of copper and furnished with strong Spanish bits. As for our spurs, they were sharp and heavy enough to have driven an elephant, not to speak of a Californian mule, which I take to be the more unmanageable beast of the two. To finish the detail of our equipments, I will describe my own costume as a fair sample of the style of the dress which we wore. I was attired in a check or "hickory" shirt, as they are called, a pair of buck-skin pants, a fringed hunting-shirt of the same material, gayly lined with red flannel and ornamented with brass buttons (which last I afterward found useful in trading with the Indians). As for my head gear, my hat would scarcely have passed muster among the "Genius" and "Learys" in Broadway — being nothing more than a broad-brimmed straw of very ordinary texture. To go to the other extremity, my feet were cased in a pair of strong cowhide boots, which reached almost to the knee. My weapons I have already noticed; but among my list of sundries I must not forget my water flask, which was a curiosity in its way, and as I have not yet taken out a patent for the invention, it may give some ingenious Yankee a new idea. It was a bottle made of porous leather, which held half a gallon, and suffered just so much of the liquid to soak through as was requisite to keep the outside constantly wet, so that whenever I desired cool water I had only to hang up my flask, or expose it to a free current of air.

As the first day's march was intended as a sort of trial trip, we determined to make the distance a short one, and encamp for the night at our old stand, Bridge Creek, which, as I have before stated, was directly on our way to the Pass; and it was well that we did so; for though our camping ground was but fifteen miles distant from the Pueblo, our march seemed more like a chapter of accidents than a progressive movement. Many of the mules, saddled for the first time in months, got up all sorts of ungainly antics; and were as vicious and obstinate as possible. We had scarcely cleared the town when a tremendous clatter in our rear apprised me that something was coming; and ere I could turn my head a pack-mule passed me at the top of her speed, with her head stretched out and

her heels flying in the air, while at every jump, the beast flung some article of my personal property right and left, here a frying-pan, and there a bag of sugar, while Juan came thundering in her wake swearing indifferently in Spanish and English, and threatening all sorts of personal violence to the long-eared offender. And so we jogged along until sunset. I do not believe that a more tired man, or one more keenly sensible of the luxuries of rest and a good cup of coffee, could have been found that night than myself.

By sunrise the next morning we were on our way to the Pass, and a hard and hot day's ride we had of it. During the day we passed the last house which we were to see until our arrival in the Territory of New Mexico, and I must confess that I turned in my saddle and cast many "a longing, lingering look" behind. Our camp that night was upon a rough and stony hillside, within the Pass. I remember well that I felt something more substantial than a crumpled rose-leaf under me during the night; to say nothing of awakening in the morning with an accurate impression of divers small geological specimens in my back and sides. But these were minor difficulties and a mere foretaste of the troubles to come.

And now, dear reader, as I am about entering upon the theatre of our more exciting travel, I will remark that it is not my intention to treat the subject geographically, geologically or botanically. I have had a horror of the "ologies" ever since my days of schoolboy experience, and as Frémont has described the country, its general features and productions, it would be not only unnecessary, but presumptuous in me to portray it: I shall therefore confine myself to such scenes of incident and adventure as might prove most interesting; and—thanks to Indians, hard travel and harder fare—I think there will be no lack of incident.

My sensations upon viewing the Great Desert for the first time were certainly peculiar, and I think that they who know the country will acquit me of any unmanly feeling, when I say, that, as my eye wandered over the vast expanse of hot sand and broken rock, I thought that I should not altogether dislike "backing out." But we were "in for it," and there was no use moralizing. Besides, I soon had matters of more moment to occupy me.

Among my seven animals (of whom, to criticise them as a body, I can safely say that they appeared to be about equally made of viciousness, obstinacy, and a strong disposition to laziness) I found a little gray mule which I had reserved for my especial riding. She had her unpleasant peculiarities too, one of which was that it generally required about two men to saddle her, one to throw her down, and one to put the saddle on. Another amiable failing was a trick which on this occasion I learned to my cost; though perfectly gentle with her rider fairly seated, she took advantage of your getting off, to look quietly round, get your exact position and attitude, then let both heels fly, knock you down, and be off like the wind. We had just got to the foot of a long, steep sand hill, when by some ill-fortune I found myself half a mile in the rear of our men, who were crossing the summit of the ridge; my saddle slipping at the same time, I dismounted to tighten the girths, when my "gallant

grey" at once practiced her favorite manœuvre, leaving me "*hors de combat*," doubled up on a heap of sand in company with about fifty pounds of light luggage, in the way of blankets, gun and ammunition, from which recumbent position I elevated myself just in time to behold my treacherous mule under full sail for the rest of the caballada. Talk about Job's troubles, if you will; it *was* enough to make a minister forget himself. I did swear a little, and once I leveled my rifle at the flying steed; but prudence stepped in and whispered that one live mule was worth ten dead ones—particularly on the road—so I determined to pocket my anger for the present, and shouldering my gun, with a blanket on either arm, I trudged up hill through the deep sands for nearly a mile, when just as I had made up my mind to stop where I was until the Diggers should be pleased to come and take me, Juan galloped up with the truant mule, which he had captured with his lasso. I can assure the reader that I was not the only sufferer by the transaction.

Our route for several days lay over a dreary waste, where the eye met the same eternal rock and sand. In fact, the whole country looks more like the crater of an immense volcano than any thing else I can compare it to; or, to use the words of one of our men, he believed "the darned place had been a-fire, and hadn't got quite cool yet." Our general course was by the great Spanish trail, and we made as rapid traveling as possible, with the view of overtaking the large Mexican caravan which was slowly wending its way back to the capital of New Mexico. This caravan consisted of some two or three hundred Mexican traders who go on one year to the Californian coast with a supply of blankets and other articles of New Mexican manufacture; and having disposed of their goods, invest the proceeds in Californian mules and horses, which they drive back across the desert. These people often realize large profits, as animals purchased for a mere trifle on the coast, bring high prices in Santa Fé. This caravan had left Pueblo de Los Angeles some time before us, and were consequently several days in advance of our party upon the trail—a circumstance which did us great injury, as their large caballada (containing nearly a thousand herd) ate up or destroyed the grass and consumed the water at the few camping grounds upon the route.

We finally overtook and passed this party, after some eight days' travel in the Desert. Their appearance was grotesque in the extreme. Imagine upward of two hundred Mexicans dressed in every variety of costume, from the embroidered jacket of the wealthy Californian, with its liver bell-shaped buttons, to the scanty habiliments of the skin-clad Indian, and you may form some faint idea of their dress. Their caballada contained not only horses and mules, but here and there a stray *burro* (Mexican jackass), destined to pack wood across the rugged hills of New Mexico. The line of march of this strange cavalcade occupied an extent more than a mile; and I could not help thinking, while observing their arms and equipments, that a few resolute men might have captured their property, and driven the traders like a flock of sheep. Many of these people had no fire-arms, being only provided with the short-bow and arrows usually carried by New Mexican herdsmen. Others were armed with old English muskets, condemned long ago as unserviceable

which had, in all probability, been loaded for years, and now bid fair to do more damage at the stock than at the muzzle. Another description of weapon appeared to be highly prized among them — these were old, worn-out dragoon sabres, dull and rusty, at best a most useless arm in contending with an enemy who fights only from inaccessible rocks and precipices; but when carried under the leathers of the saddle, and tied with all the manifold straps and knots with which the Mexican secures them, perfectly worthless even at close quarters.

Near this motley crowd we sojourned for one night; and passing through their camp after dark, I was struck with its picturesque appearance. Their pack-saddles and bales had been taken off and carefully piled, so as not only to protect them from damp, but to form a sort of barricade or fort for their owner. From one side to the other of these little corals of goods a Mexican blanket was stretched, under which the trader lay smoking his cigarrito, while his Mexican servant or slave — for they are little better — prepared his coffee and "atole."

Not long after leaving the great caravan, I had gone aside from our trail and found a small quantity of water, which looked clear and tempting, in a deep crevice among the rocks. The noon-day sun shone fiercely upon the burning sand, and my mouth was parched with thirst; but though longing to drink, the water was in so inaccessible a position that, without some vessel in which to draw it from the chasm, my case would have been but little better than that of Tantalus. I looked in vain for my ordinary drinking cup, but Señor Juan, with great forethought for his own comfort, had fastened it to his saddle before starting. As I stood racking my brain to discover some expedient which might overcome the difficulty, I espied a human skelton near me. A thought struck me. I remembered Byron, in his libations from the skull; and, revolting as it would have been under different circumstances, my strong necessity compelled me to make use of it. So I drank a most grateful draught of water from the bleaching bone, and then sat down to moralize upon the event, and wonder to whom it had belonged, and how its owner died; the result of all of which was, that I felt much obliged to the unknown individual for the use of that which could by no possibility be of any further service to him; and as a committee of one, sitting alone in the desert by the side of the fountain, I voted him my thanks accordingly.

I have heretofore briefly mentioned my Mexican servant Juan, to whom Carson had given so indifferent a character. This scapegrace had for some days shown a disposition to give trouble in various ways; but we had come to no open rupture until one afternoon, when riding in the advance, I looked back and observed the "*réata*" of my pack-mule dragging upon the ground. Calling to Juan to secure it, I rode on, thinking that my orders had been attended to. Now it so happened at that particular moment that Señor Juan was engaged with the assistance of a Mexican friend and his cigarrito in making himself exceedingly comfortable; and upon again turning my head I found my *réata* in a worse way than before. "Now," said Kit, "that fellow is trying which is to be the master, you or he, and I should advise you to give him a lesson which he will remember; if we were nearer the settlements I would not recommend

it, for he would certainly desert and carry your animals with him; but as it is, he will not dare to leave the party, for fear of the Indians." As I fully concurred in Carson's opinion, and felt moreover that the period had arrived for bringing up Señor Juan with the "round turn" I had mentally promised him, I simply rode back, and without any particular explanation, knocked the fellow off his mule. It was the first lesson and the last which I found it necessary to read him. Juan gave me, it is true, a most diabolical look upon remounting, which made me careful of my pistols for a night or two afterward; but he was conquered, and in future I had no reason to complain of any negligence.

The only living creatures which inhabit the desert except the prowling Diggers, are a small rabbit which burrows in the ground, existing I can scarce say how, lizards in great quantities, and a small but very venomous description of rattlesnake; with the last named reptile I was destined during my sojourn in this region to have any thing but an agreeable interview.

It was a bright moonlight night; I had, as was my custom, spread my saddle leathers for a bed, and drawn my blanket loosely around me. Weary with the day's march, I had been sleeping soundly for several hours, when about midnight I awoke suddenly, with an unaccountable feeling of dread; it must have been a sort of instinct which prompted me, for in a moment I was upon my feet, and then upon removing my blanket found a rattlesnake swollen with rage and poison, coiled and ready to strike. I drew away the *macheers* which served as a mattress, intending to kill the reptile, when to my astonishment it glided away, making its escape into a small opening in the ground directly beneath my bed. The whole matter was explained at once; I had retired early, and in arranging my couch had spread it directly near his snakeship's domicile. The snake had probably been out to see a neighbor, and getting home after I was asleep, felt a gentlemanly unwillingness to disturb me, and as I had taken possession of his dwelling he took part of my sleeping place, crawling under the blanket, where he must have lain quietly by my side, until I rolled over and disturbed him. I can scarcely say that I slept much more that night, and even Carson admitted that it made him a little nervous. Had I been bitten, our only remedy would have been some common whisky, which we carried with us in case of such an accident. It is a fact worth knowing, that in the mountains strong liquor is considered a certain preventive to any ill effects from snake-bites; to administer it properly it must be given at once, and in large quantities, until the patient is fully under its influence.

Our daily routine of life in the desert had a sort of terrible sameness about it; we rode from fifteen to fifty miles a day, according to the distance from water; occasionally after a long drive halting for twenty-four hours, if the scanty grass near the camping grounds would permit it, to rest and recruit our weary cattle; among our men there was but little talking and less laughing and joking, even by the camp-fire, while traversing these dreary wastes; the gloomy land by which we were surrounded, scanty food, hard travel, and the consciousness of continual peril, all tended to restrain the exhibition of animal spirits. Carson,

while traveling, scarcely spoke; his keen eye was continually examining the country, and his whole manner was that of a man deeply impressed with a sense of responsibility. We ate but twice a day, and then our food was so coarse and scanty, that it was not a pleasure, but a necessity. At night every care was taken to prevent surprise; the men took turns in guarding the animals, while our own mess formed the camp guard of the party. In an Indian country it is worthy of remembrance that a mule is by far the best sentry; they discover either by their keen sense of smell, or of vision, the vicinity of the lurking savage long before the mountaineer, experienced as he is, can perceive him. If thus alarmed, the mule shows its uneasiness by snorting and extending the head and ears toward the object of distrust.

During this journey I often watched with great curiosity Carson's preparations for the night. A braver man than Kit perhaps never lived, in fact I doubt if he ever knew what fear was, but with all this he exercised great caution. While arranging his bed, his saddle, which he always used as a pillow, was disposed in such a manner as to form a barricade for his head; his pistols half cocked, were laid above it, and his trusty rifle reposed beneath the blanket by his side, where it was not only ready for instant use, but perfectly protected from the damp. Except now and then to light his pipe, you never caught Kit exposing himself to the full glare of the camp fire. He knew too well the treacherous character of the tribes among whom we were traveling; he had seen men killed at night by an unseen foe, who, veiled in darkness, stood in perfect security while he marked and shot down the mountaineer clearly seen by the fire-light. "No, no, boys," Kit would say, "hang round the fire if you will, it may do for you if you like it, but I don't want to have a Digger slip an arrow into me, when I can't see him."

A rather amusing story is told of Kit's quickness of action in time of danger. Some inexperienced mountaineer had given the alarm of Indians during his tour of guard duty at night, or as western men sometime express it, "stampeded the camp;" Kit sprang to his feet in an instant and while yet half asleep seeing some dark object advancing upon him through the long grass, seized one of his unerring pistols and shot, not an Indian, but his own particular riding mule right through the head.

When the hour for our departure from camp had nearly arrived, Kit would rise from his blanket and cry "Catch up;" two words which in mountain parlance mean, prepare to start; and these words once uttered the sooner a man got ready the better; in a moment the whole scene would be changed, the men who just before were lounging about the fire or taking a journey to the land of dreams, were now upon their feet, and actively employed in bringing up refractory mules, who, true to their obstinate nature and finding that their services were about to be required, declined any forward movement, except upon compulsion. This generally called forth a volley of oaths from their enraged drivers—English, Spanish and Canadian French being all prolific in objurcations; until length the loads were fairly secured, saddles put on, and the pack-mules having been gathered together were started upon the trail: the old mare leading off with a gravity quite equal to the responsibility of

office. Kit waited for nobody; and woe to the unfortunate tiro in mountain travel who discovered to his sorrow that packs would work, bags fall off, and mules show an utter disregard for the preservation of one's personal property. A man thus circumstanced soon learns to pack a mule as it should be done, at first, put on his saddle as it ought to be put on, and keep his arms in serviceable order; or if he don't, Heaven help him; the sooner he gets back to the settlements the better.

In crossing the Desert it is often necessary to march long distances without water; these dry stretches are called by the Mexicans "jornadas;" the literal meaning of the word being a journey, but in instances like the present it refers to the absence of water upon the route traveled. On the "jornada" of which I am about to speak, which is sometimes called the "Jornada del Muerto" (the journey of death), the distance from one water-hole to another can not be less than eighty miles; and on account of the animals it is highly important that it should be traveled at once; to accomplish this we started about three o'clock in the afternoon and reached the other side of the jornada late in the morning of the following day, the greater part of the distance being gone over by moonlight. I shall never forget the impression which that night's journey left upon my mind. Sometimes the trail led us over large basins of deep sand, where the trampling of the mules' feet gave forth no sound; this added to the almost terrible silence, which ever reigns in the solitudes of the desert, rendered our transit more like the passage of some airy spectacle, where the actors were shadows instead of men. Nor is this comparison a constrained one, for our way-worn voyagers, with their tangled locks and unshorn beards (rendered white as snow by the fine sand with which the air in these regions is often filled), had a wierd and ghost-like look, which the gloomy scene around, with its frowning rocks and moonlit sands, tended to enhance and heighten.

There were other matters, too, to render the view impressive: scattered along our route we found numerous skeletons of horses, who at some former period had dropped down and died by the wayside. The frequent recurrence of these bleaching bones in a road so lonely, induced me to ask some explanation in regard to them of an old trapper belonging to our party. He informed me, that many years before, Billy Williams, a mountaineer almost as distinguished as Carson himself, had, in some interval of catching beaver and killing Indians, found time to gather a band of mountain men, with the view of undertaking a sort of piratical expedition to the coast of Lower California. In this enterprise he succeeded so far as to enter California, help himself to upward of fifteen hundred head of mules and horses, and regain the desert without losing a man. But from this point his troubles began. The Californians, disapproving of this summary mode of treating their property, determined to pursue and retake it by force; and to carry out their design, followed closely upon the trail of Williams's party, with nearly two hundred men. Finding himself pursued, the mountaineer, whose men were not over thirty in number, pushed on with all possible speed; and in crossing the great jornada, lost from fatigue and overdriving nearly one thousand head of his ill-gotten booty. Rendered desperate, he encamped at a water-hole,

some fifteen miles distant from the termination of the jornada, at which latter point his pursuers had already arrived; Williams remarking to his men, "Well, boys, we have lost the most of our caballada, but we have five hundred animals left; and as we must recruit our stock, we will just stop where we are till we have done so; and, in the mean time, if those Mexicans want to get their animals, let them come and take them, if they can." In accordance with this determination, Billy's people waited three days; but so far as the coming of their enemies was concerned, waited in vain; their courage had evidently failed them; and, although they could pursue a retreating foe, they felt no inclination to face the rifles of American hunters, who had turned like a stag at bay. At length, growing tired of inaction, and exasperated by the loss which he had already sustained, Williams proposed to his comrades to visit the Californian camp by night, and steal the horses upon which their pursuers had followed them. To this they assented; and that evening took from their enemies every horse and mule which they had with them, leaving them to return as best they might. This feat having been thus successfully performed, the Americans went on their way rejoicing. But alas for human expectations! as though to mete out a sort of even-handed justice, it was destined that they should be attacked by the Indians, who drove off their whole caballada, leaving them to find their way back to Santa Fé on foot. I will add that it is rumored that Williams curses the Indians heartily whenever he tells the tale. Such is the story, but beyond the dry bones upon the jornada, I can bear no witness to its truth.

I was not permitted to pass this portion of the desert without meeting with an adventure, which even now makes my heart beat quicker when I think of it.

When almost midway in the jornada, we entered upon what appeared, by the uncertain light, to be an immense circular basin of sand, surrounded by a range of mountains so distant that the eye could barely make out their dim outlines against the moonlit sky. This sand plain must have been fully eighteen miles in diameter; and we had barely got into it when one of my pack-mules kicked off her load; and by so doing, rendered it necessary for Juan and myself to dismount, collect the bags, and repack the animal; an operation which, as the mule was extremely restive, occupied sometime to perform. When we were ready to start, I directed Juan to go ahead with the pack-mule, while I followed slowly in his rear. Now, among other imperfections, it is my misfortune to be very absent-minded; and having fallen into some train of thought which I wished to ravel out, I threw the reins upon the neck of my mule, and jogged along slowly, until a sudden stumble warned me that we were getting into rocky ground again; and upon looking round to discover the whereabouts of our party, I found that they were not only out of sight, but out of hearing. Now as this had happened to me before, I did not give myself any particular uneasiness; but alighted, thinking that I could easily retrace my road by the track of the mules' hoofs in the sand, and thus return until I struck the back trail of our caballada, when it would be an easy matter to rejoin them; but my horror can scarcely be conceived, when I discovered that the strong wind which was blowing had filled the hoof

tracks almost as fast as they had been made, so that all trace of my route was gone. My situation was certainly one to appall the stoutest heart; in the depths of an almost trackless wilderness, five hundred miles from the nearest settlements, and perfectly ignorant as I was, not only of the locality of the water-hole, but even of the general course which Kit intended taking, I saw no prospect before me but a lingering death from starvation, with none to witness my sufferings—or, at best, to be murdered by the Indians, who were continually lurking about the Spanish trail. My very mule seemed to sympathize with my uneasiness, by snorting wildly, tossing her head in the air, and beating the ground with her hoofs. At length, a hope dawned upon me. I had often heard of the great sagacity of the Mexican mules, and the astonishing distances at which they will scent water; and I felt that if I was to be saved, the mule's instinct must be my preservation. So springing upon her back, I gave her the spur, at the same time uttering the cry used by Mexican muleteers to encourage their animals; then flinging the reins loosely upon her back, I left her to take whatever course she pleased. For a moment, the animal faltered and seemed uncertain, then bounded madly forward, snuffed the air, and put her head to the ground. A moment more, and with a wild cry and a shake of the head, she was off at a rapid gallop, never halting, save now and then to snuff the sand, until she had carried me safely into the very midst of our party. I need scarcely say that I felt very much like a man who had been badly scared, and had only just begun to get over it. I remember, too, making a resolution never to be left behind again—which I kept, at least, a week.

The Pau-Eutaw or Digger Indians (so called from the roots which they dig from the ground and on which they depend for the greater portion of their miserable subsistence), first made their appearance shortly after we had crossed the great jornada. Our camp was then situated upon the borders of a little stream, where a few scanty patches of grass afforded some refreshment to our tired beasts; and our party, with few exceptions, besides the watchful horse-guard, were stretched upon the ground resting wearily after the long night's ride, which we had just accomplished. Carson, who was lying beside me, suddenly raised himself upon his elbow, and turning to me, asked: "Do you see those Indians?" at the same time pointing to the crest of one of the gravelly, bluff-like hills with which we were surrounded. After a careful examination of the locality, I was obliged to reply in the negative. "Well," said Kit, "I saw an Indian's head there just now, and there are a party of at least a dozen more, or I am much mistaken." Scarcely were the words out of his mouth when a savage rose to his full height, as if he had grown from the rocks which fringed the hill top: this fellow commenced yelling in a strange guttural tongue, at the same time gesticulating violently with his hands; this he intended as a declaration of friendship; and Kit rising up, answered him in his own language, "Tigabu, tigabu" (friend, friend). After a little delay, and an evident consultation with his people, the old Digger (for such he proved to be), came, at first rapidly and then more slowly, toward us, descending the steep hill-side with an agility astonishing in so aged a being. Carson advanced a

short distance to meet him, and again renewed his assurance of our friendship; but it was not until the old man had been presented with some trifling gift that he seemed fully at his ease, and yelled to his companions to join him. This they did with evident caution, coming into our camp two or three at a time until they numbered upward of a dozen. The old man had evidently been sent as a sort of a forlorn hope, to fall a victim, should we be inclined to hostility. Our Indian visitors soon gave us to understand that they were hungry; to meet this demand upon our hospitality we ordered more coffee put upon the fire, and presented them with what little remained of our dried beef, which having got wet was now both spoiled and mouldy. This, disgusting as it was, they ate voraciously; but in regard to the coffee, they seemed somewhat doubtful, until we had ourselves drank of it, when they followed our example without further hesitation, and soon emptied the kettle. In fact, had we been disposed to furnish the material, they would have devoured our whole stock of provisions; as it was, seeing that no more was to be had, they expressed their satisfaction by rubbing down their stomachs, and grunting in a manner which would have done credit to a herd of well-fed swine.

We were just arranging ourselves on the ground in a circle for the purpose of smoking and having a talk, "*à la Indian*," when a new party, with a large drove of horses and mules, made their appearance. These new-comers proved to be a small band of Americans, who were driving their cattle into the Eutaw country with the view of trading with that tribe of Indians. The owner of the animals and leader of the party was a Mr. Walker, an old acquaintance of Carson's. After securing his *caballada*, and making camp in our vicinity, Mr. Walker joined our party, and the interrupted council was resumed.

Though this was a state occasion, and one which required due gravity of countenance, I found it rather difficult to control my risibles at the singular scene which we presented.

Imagine us seated in a circle on the ground, checkered red and white, with here a half naked Indian, and there a mountaineer, almost as uncouth, in his own peculiar garb. The arms of both parties, though not ostentatiously displayed (which might have interfered with our negotiation), being placed where they could be reached at a moment's warning: a pipe (Carson's own particular "*dudheen*") being put in requisition for the occasion, was duly filled with tobacco, lighted, and a short smoke having been taken by Carson, Walker and myself, it was then passed to the oldest man among our Indian guests, who took two or three long whiffs, retaining the smoke in his mouth, until his distorted face bore so strong a resemblance to an antiquated monkey's under trying circumstances, that I had all but disturbed the gravity of the assembly by bursting into a roar of laughter. The old warrior, having first reduced himself to the very verge of suffocation in his anxiety to make the most of the fragrant weed, then proceeded to utter a chorus of grunts, which were intended to signify his satisfaction either in meeting us, or, what is quite as likely, in the flavor of our tobacco. The pipe having finally gone the rounds of our parti-colored circle, found its way back into the hands of the old Indian, who, having placed it securely in his mouth,

seemed to continue smoking in a fit of absence of mind, which not only induced him to refill it, but rendered him perfectly insensible to the reproving grunts of his brethren. I have since thought that the old warrior may have been a deep politician in his way, and therefore retained the pipe to obviate the necessity of his talking, which might have obliged him to commit himself disadvantageously upon some diplomatic question.

The talk then commenced. Kit told as much of his route and future intentions as he thought necessary, though I doubt whether they gained much *real* information; and concluded by charging divers murders and outrages upon the members of the tribe to which our visitors belonged. The Diggers answered to the effect that there were bad Indians living among the hills who did such things, but that for themselves they were perfectly innocent, never did any thing wrong in their lives, entertained a great regard for the whites in general, and ourselves in particular; and wound up, diplomatically speaking, by "renewing to us the assurances of their distinguished consideration," coupled with a strong hint that a present (a horse, or some such trifle) would not be unacceptable as an evidence of our esteem.

These Digger Indians are by far the most degraded and miserable beings who inhabit this continent; their bag-like covering is of the very scantiest description, their food revolting; the puppies and rats of the Celestials being almost Epicurean when compared with a Pau-Eutaw bill of fare. Some of the parties which I have been mentioning brought lizards with them into our camp, and ate them raw, or with no further preparation than jerking off the reptile's tail. To obtain this description of food more readily, many of them carried with their arms a sort of hooked stick, not unlike a long cane, which they use in capturing them. The hair of these savages is long, reaching nearly to their middle, and almost as coarse as the mane of a mule. Their faces seem perfectly devoid of any intellectual expression, and—save the eye, which is exceedingly keen—their features are in nowise remarkable. The traveler can not but notice a strong similarity to a wild beast, both in their manners and appearance. I have repeatedly observed them turning the head from right to left quickly, while walking, in the manner of a prairie wolf. In voracity, they bear a greater resemblance to an anaconda than to a human being. I have been told, by those who know them well, that five or six of these Indians will sit round a dead horse, and eat until nothing but the bones remain. Unlike the tribes of the Rocky Mountains, they steal your animals, not to ride, but to slaughter for food, and a loss of this kind is rendered doubly provoking to the trapper from the fact that they invariably pick out your fattest and best conditioned stock. I am informed, and I have no reason to disbelieve the story, that they will even sell their own children to the Californians, to obtain some addition to their scanty supplies. It cannot be denied that there is some excuse for their failings in these respects; the miserable country which they inhabit is incapable of supporting them, and the surrounding tribes, who occupy the more fertile portions of this region, look upon these outcasts with a suspicious eye, and are unrelenting in driving them from their hunting grounds.

The arms of this degraded people consist of a bow of uncommon length, and arrows headed with stone; these last they are said to poison. In regard to their mode of obtaining the venom for this purpose, I have been told the following story, which, without attempting to indorse, I shall relate as it was told to me. The liquid which renders their shafts so deadly is a combination of the rattle-snake's poison with an extract which they distill from some plant known only to themselves. This plant would appear to possess the qualities of the fabled Upas-tree, as the noisome vapors exhaled by distillation act so powerfully upon the procurer as to destroy life. It becomes therefore a matter of some moment to decide upon the individual who is to prepare the yearly stock of poison for his tribe. Now it would naturally be supposed that so dangerous an office would be shunned by all; but, on the contrary (says my narrator), a yearly contest takes place among the oldest squaws as to which shall receive the distinguished honor of sacrificing her life in the cause, and the conflict ends in the appointment of the successful competitor, who does the work and pays the penalty.

Our Indian visitors remained with us all day, hoping probably that some present would be given them; an expectation which was never destined to be fulfilled. About sunset, Kit's usual cry of "Catch up," warned us to prepare for the road; and while most of the men were engaged in packing the animals, a young Indian (who, by the way, had been the loudest in his protestations of good will,) seized the opportunity to abstract from the luggage of an old mountaineer a tin cup, which he tossed across the creek into the long rushes fringing its banks. Now, this act, although certainly a gross violation of the laws of hospitality, was, under the circumstances of the case, a most ingenious mode of stealing, as the cup, even after it had been missed amid the hurry of our departure, would have been supposed to be accidentally lost; and the almost naked savages, who had evidently no means of concealing it about their persons, relieved from any suspicion of dishonesty. As it happened, I was the only one who perceived the manœuvre, and calling the man to whom the cup belonged, I informed him of his loss, at the same time pointing out the offender. He was, as I have already remarked, an old mountaineer, and long experience among the Indians had taught him the best course to pursue; so without wasting time in exposition, he grasped the dishonest warrior by the hair with one hand and round the leg with the other, and then plunged him, head first, into the creek, at the same time ordering him, under the penalty of death, to swim across, find the cup, and return it. This the savage did, though with evident reluctance; and as he stood dripping upon the bank, I thought that I had never seen a more forlorn or crest-fallen looking creature. As for his companions, so far from expressing any indignation at his treatment, they seemed to look upon the whole affair as a good joke, and laughed heartily.

Shortly after our departure from this encampment, we perceived smoke rising from the hills in our vicinity;—these smokes were repeated at various points along our route, showing that the Diggers, for some purpose best known to themselves, thought fit to apprise their tribe of our

passage through the country. During the following day, parties of these Indians showed themselves occasionally upon the crests of inaccessible hills, but seemed unwilling to come within gun-shot; nor was it until we had gone two days' journey from the camp where they had attempted to steal, that a few of their people mustered courage to visit us. And when they did so, the actions of the party were so suspicious, that Kit concluded to retain one of their number (a young warrior about eighteen years of age) as a sort of hostage for their good behavior during the night. Our so doing appeared to give a much greater uneasiness to the tribe than to the object of their solicitude, who, either from a feeling of security, or by a strong exercise of that power of self-control for which the North American Indian is famous, exhibited no signs of timidity, but made himself perfectly at home after his own fashion. Sitting beside us on the ground, he conversed freely with Carson in the low, guttural accents of his native tongue, which he eked out with gestures and figures rudely drawn upon the ground. After partaking of our supper, he stretched himself quietly upon a blanket which we had lent him for his bed, and was about composing himself to sleep when his companions set up a most dismal howling from the adjoining hills. This yelling—sounding more like a chorus of screech-owls, or a troop of hungry wolves, than any thing else I can compare it to—was rendered doubly mournful by the gloomy shades of evening, and the otherwise total silence of the hour. This disturbance was finally quieted by Kit's replying in the Pau-Eutaw tongue, aided by the assurances of the young man himself, who yelled back an answer to the effect that he was still in the land of the living. We knew too well the treacherous character of these people to permit this Indian to sleep in our very midst without some guard over his movements during the night; so our own mess divided this duty among them. It fell to my lot to keep the first watch until midnight; and I remember well standing beside our temporary captive with my rifle in my hand, almost envying the calmness with which he slumbered, although separated from his friends, and surrounded by those whom he must have considered the natural enemies of his race. I must not forget to say that, while arranging his bed, he asked for his bow and arrows, which I handed him; these he placed carefully beneath the blanket by his side, explaining to me, by signs, that damp might impair their efficacy by relaxing the bowstring, which was composed of twisted sinews.

The night passed quietly away; and in the morning we allowed our hostage to depart, making him a few trifling presents as a recompense for his involuntary detention. Among these matters, an old pair of pantaloons, worn and tattered from long service, seemed most valued by their new possessor. So much was he elated by this acquisition, that it seemed difficult for him to restrain the expression of his joy. In fact, no city dandy, faultlessly arrayed for the fashionable side of Broadway, could have exhibited more perfect satisfaction in his strut and air than our untutored Digger. I doubt not that this new costume made him the wonder and envy of his comrades, whose principal garb was the dress with which Dame Nature had provided them.

At the Archilette, a well known camping ground in the desert, we

passed a day and night. This dreary spot has obtained a mournful notoriety among the few travelers through these sandy wastes, from its having been the theatre of a tragedy which, though I have heard the tale from the lips of Carson himself, and witnessed the bleaching bones of the victims, I will relate, in the words of Frémont, who has given in his journal full details of the outrage. The Colonel first mentions it under date of April 24th, 1844, when he says :

" In the afternoon we were surprised by the sudden appearance, in the camp, of two Mexicans — a man and boy. The name of the man was Andreas Fuentes; and that of the boy (a handsome lad, eleven years old) Pablo Hernandez. They belonged to a party consisting of six persons, the remaining four being the wife of Fuentes, the father and mother of Pablo, and Santiago Giacome, a resident of New Mexico, with a cavalcade of about thirty horses; they had come out from Puebla de los Angeles, near the coast, to travel more at leisure, and obtain better grass. Having advanced as far into the desert as was considered consistent with their safety, they halted at the Archillette, one of the customary camping grounds, about eighty miles from our encampment, where there is a spring of good water, with sufficient grass, and concluded to await there the arrival of the great caravan. Several Indians were soon discovered lurking about the camp, who, in a day or two after, came in, and after behaving in a very friendly manner, took their leave without awakening any suspicions. Their deportment begat a security which proved fatal. In a few days afterward, suddenly a party of about one hundred Indians appeared in sight, advancing toward the camp. It was too late, or they seemed not to have presence of mind to take proper measures of safety; and the Indians charged down into their camp, shouting as they advanced, and discharging flights of arrows. Pablo and Fuentes were on horse-guard at the time, and mounted according to the custom of the country. One of the principal objects of the Indians was to get possession of the horses, and part of them immediately surrounded the band; but in obedience to the shouts of Giacome, Fuentes drove the animals over and through the assailants, in spite of their arrows; and, abandoning the rest to their fate, carried them off at speed across the plain. Knowing that they would be pursued by the Indians, without making any halt, except to shift their saddles to other horses, they drove them on for about sixty miles, and this morning left them at a watering place upon the trail called Agua de Tomaso. Without giving themselves any time for rest, they hurried on, hoping to meet the Spanish caravan, when they discovered my camp. I received them kindly, taking them into my own mess, and promised them such aid as circumstances might put it into my power to give."

Under date of April 25th, Colonel Frémont again alludes to the subject, in the following extract from his journal :

" After traveling about twenty-five miles, we arrived at the Agua de Tomaso — the spring where the horses had been left; but, as we expected, they were gone. A brief examination of the ground convinced us that they had been driven off by the Indians. Carson and Godey volunteered with the Mexican to pursue them; and, well mounted, the three set off

on the trail. In the evening Fuentes returned, his horse having failed; but Carson and Godey had continued the pursuit. In the afternoon of the next day, a war-whoop was heard, such as Indians make when returning from a victorious enterprise; and soon Carson and Godey appeared, driving before them a band of horses, recognized by Fuentes to be part of those they had lost. Two bloody scalps dangling from the end of Godey's gun, announced that they had overtaken the Indians as well as the horses. They informed us that, after Fuentes left them from the failure of his horse, they continued the pursuit alone, and toward night-fall entered the mountains, into which the trail led. After sunset the moon gave light, and they followed the trail by moonshine until late in the night, when it entered a narrow defile, and was difficult to follow. Afraid of losing it in the darkness of the defile, they tied up their horses, struck no fire, and lay down to sleep in silence and in darkness. Here they lay from midnight till morning. At daylight they resumed the pursuit, and about sunrise discovered the horses; and immediately dismounting and tying up their own, they crept cautiously to a rising ground which intervened, from the crest of which they perceived the encampment of four lodges close by. They proceeded quietly, and had got within thirty or forty yards of their object, when a movement among the horses discovered them to the Indians. Giving the war-shout, they instantly charged into the camp, regardless of the number which the four lodges would imply. The Indians received them with a flight of arrows shot from their long bows, one of which passed through Godey's shirt-collar, barely missing his neck; our men fired their rifles upon a steady aim, and rushed in. Two Indians were stretched upon the ground, fatally pierced with bullets; the rest fled, except a lad that was captured. The scalps of the fallen were instantly stripped off; but in the process, one of them, who had two balls through his body, sprang to his feet, the blood streaming from his skinned head, and uttered a hideous howl. An old squaw, possibly his mother, stopped and looked back from the mountain side she was climbing, threatening and lamenting. The frightful spectacle appalled the stout hearts of our men; but they did what humanity required, and quickly terminated the agonies of the gory savage. They were now masters of the camp, which was a pretty little recess in the mountain, with a fine spring, and apparently safe from all invasion. Great preparations had been made to feast a large party, for it was a very proper place for a rendezvous, and for the celebration of such orgies as robbers of the desert would delight in. Several of the best horses had been killed, skinned, and cut up; for the Indians, living in the mountains, and only coming into the plains to rob and murder, make no other use of horses than to eat them. Large earthen vessels were on the fire, boiling and stewing the horse-beef; and several baskets, containing fifty or sixty pairs of moccasins, indicated the presence or expectation of a considerable party. They released the boy, who had given strong evidence of the stoicism, or something else, of the savage character, in commencing his breakfast upon a horse's head, as soon as he found that he was not to be killed, but only tied as a prisoner. Their object accomplished, our men gathered up all the surviving horses, fifteen in number,

returned upon their trail, and rejoined us at our camp in the afternoon of the same day. They had rode about one hundred miles in the pursuit and return, and all in thirty hours. The time, place, object, and numbers considered, this expedition of Carson and Godey may be considered among the boldest and most disinterested which the annals of western adventure, so full of daring deeds, can present. Two men, in a savage desert, pursue, day and night, an unknown body of Indians, into the defiles of an unknown mountain—attack them on sight, without counting numbers—and defeat them in an instant, and for what? To punish the robbers of the desert, and to avenge the wrongs of Mexicans whom they did not know. I repeat, it was Carson and Godey who did this—the former an American, born in the Boon's Lick county, of Missouri; the latter a Frenchman, born in St. Louis; and both trained to western enterprise from early life."

Under date of April 29th the same writer adds:

"To-day we had to reach the Archillette, distant seven miles, where the Mexican party had been attacked; and leaving our encampment, we traversed a part of the desert, the most sterile and repulsive that we had yet seen. Our course was generally north; and after crossing an intervening ridge, we descended into a sandy plain, or basin, in the middle of which was the grassy spot, with its springs and willow bushes, which constitutes a camping place in the desert, and is called the Archillette. The dead silence of the place was ominous; and galloping rapidly up, we found only the corpses of the two men; everything else was gone. They were naked, mutilated, and pierced with arrows. Hernandez had evidently fought, and with desperation. He lay in advance of the willow, half facing the tent which sheltered his family, as if he had come out to meet danger, and to repulse it from the asylum. One of his hands and both his legs had been cut off. Giacomo, who was a large and strong-looking man, was lying in one of the willow shelters, pierced with arrows. Of the women no trace could be found, and it was evident they had been carried off captive. A little lap-dog, which had belonged to Pablo's mother, remained with the dead bodies, and was frantic with joy at seeing Pablo: he, poor child, was frantic with grief; and filled the air with lamentations for his father and mother. "*Mi padre! mi madre!*" was his incessant cry. When we beheld this pitable sight, and pictured to ourselves the fate of the two women, carried off by savages so brutal and so loathsome, all compunction for the scalped-alive Indians ceased; and we rejoiced that Carson and Godey had been able to give so useful a lesson to these American Arabs, who lie in wait to murder and plunder the innocent traveler. We were all too much affected by the sad feelings which the place inspired to remain an unnecessary moment. The night we were obliged to pass there. Early in the morning we left it, having first written a brief account of what had happened, and put it in the cleft of a pole planted at the spring, that the approaching caravan might learn the fate of their friends. In commemoration of the event we called the place *Agua de Hernandez*—*Hernandez's Spring*."

As I have remarked, the foregoing details were narrated to me by

Carson, one of the principal actors in the affair, while we were encamped upon the ground where the murders were committed. I remember that during our visit, the dreariness of the scene was enhanced by a coming storm, which rendered the sides of the naked *sierras* still darker, and muttered solemnly among the hills. The bones of the unfortunate men still whitened on the sand, and one of the skulls which the Indians had thrust upon a pole planted in the ground, betokened the recent presence of their murderers.

Upon reaching the banks of the Rio Virgen (Virgin's River) we found the "Indian Sign," as it is called by the trappers, growing every where more plentiful. The signal fires, too, were still continued, and furnished additional evidence that our presence in this region was regarded with suspicion and distrust. Among our halts near the Virgen, we stopped at the point where Frémont, in the spring of 1844, lost one of his best men, an old mountaineer, who fell a victim to the hostility of these same Indians. The intrepid explorer has thus described his murder in his official report; from which valuable document I have already taken the liberty of quoting.

Under date of May 9th, 1844, he writes :

"I had been engaged in arranging plants; and, fatigued with the heat of the day, I fell asleep in the afternoon and did not awake until sundown. Presently Carson came to me, and reported that Tabeau, who early in the day had left his post, and, without my knowledge, rode back to the camp we had left, in search of a lame mule, had not returned. While we were speaking a smoke rose suddenly from the cotton-wood grove below, which plainly told us what had befallen him; it was raised to inform the surrounding Indians that a blow had been struck, and to tell them to be on their guard. Carson, with several men, well mounted, was instantly sent down the river, but returned in the night, without any tidings of the missing man. They went to the camp we had left, but neither he nor the mule was there. Searching down the river, they found the tracks of the mule, evidently driven along by Indians, whose tracks were on each side of those made by the animal. After going several miles, they came to the mule itself, standing in some bushes, mortally wounded in the side by an arrow, and left to die, that it might be afterward butchered for food. They also found, in another place, as they were hunting about on the ground for Tabeau's tracks, something that looked like a little puddle of blood, but which the darkness prevented them from verifying. With these details, they returned to our camp, and their report saddened all our hearts."

"May 10th.—This morning, as soon as there was light enough to follow tracks, I set out myself, with Mr. Fitzpatrick and several men, in search of Tabeau. We went to the spot where the appearance of puddled blood had been seen; and this, we saw at once, had been the place where he fell and died. Blood upon the leaves, and beaten-down bushes, showed that he had got his wound about twenty paces from where he fell, and that he had struggled for his life. He had probably been shot through the lungs with an arrow. From the place where he lay and bled, it could be seen that he had been dragged to the river's bank and

thrown into it. No vestige of what had belonged to him could be found, except a fragment of his horse equipments. Horse, gun, clothes—all became the prey of these Arabs of the New World. Tabeau had been one of our best men, and his unhappy death spread gloom over our party. Men who have gone through such dangers and sufferings as we had seen, become like brothers, and feel each other's loss. To defend and avenge each other, is the deep feeling of all."

As an apology for this long quotation, I may state that many of our party had been friends and companions of the unfortunate Tabeau; and the exciting sensations called up by revisiting the scene of his tragic end, found vent in the deep and general feelings of indignation expressed by our mountaineers against the tribe who had committed the murder.

We had scarcely been encamped two hours, when one of our horse-guard reported that he had discovered new Indian tracks near our caballada, and expressed the opinion that they had just been made by some Digger spy, who had reconnoitred our position with the view of stealing the animals. With the associations connected with the spot, it will hardly seem wonderful that our line of conduct was soon determined upon. Carson, two old hunters, named Auchambeau and Lewis, and myself, took our guns, and started upon the freshly-made trail. The foot tracks, at first, led us through the winding paths, along the river bottom, where we were obliged to travel in Indian file; and then turned suddenly aside, ascending one of the steep sand hills which bordered upon the stream. There we lost some time from the obscurity of the trail, but finally recovered it upon the crest of the bluff. A moment after, I heard Kit shouting, "there he goes;" and looking in the direction to which he pointed, I saw a Digger with his bow and arrows at his back, evidently badly frightened, and running for his life. Such traveling through deep sand I never saw before. The fellow bounded like a deer, swinging himself from side to side, so as to furnish a very uncertain mark for our rifles. Once, he seemed inclined to tarry, and take a shot at us; but after an attempt to draw his bow, he concluded he had no time to waste and hurried on. Kit fired first, and, for a wonder, missed him, but it was a long shot, and on the wing to boot. I tried him next with a musket, sending two balls and six buck-shot after him, with like success. Auchambeau followed me, with no better fortune; and we had begun to think the savage bore a charmed life, when Lewis, who carried a long Missouri rifle, dropped upon one knee, exclaiming, "I'll bring him, boys." By this time the Indian was nearly two hundred yards distant, and approaching the edge of a steep cañon (as it is called) of rocks and sand. The thing was now getting exciting, and we watched the man with almost breathless care, as Lewis fired; at the crack of the rifle the Digger bounded forward, and his arm, which had been raised in the air, fell suddenly to his side. He had evidently been wounded in the shoulder; yet, strange to say, such is their knowledge of the country, and so great their powers of endurance, that he succeeded in making his escape. In running, this warrior (who may have been an inferior chief), dropped his head-dress of fur, which, as he did not stop to get it, I thought might fairly come under the head of captured property, and took it away accordingly.

Our adventures in the desert were eventually terminated by our arrival at "*Las Vegas de Santa Clara*;" and a pleasant thing it was to look once more upon green grass and sweet water, and to reflect that the dreariest portion of our journey lay behind us, so that the sands and jornadas of the great basin would weary our tired animals no more. But with all this, dangers, hardships, and privations were yet to be encountered and overcome; the craggy steeps and drifted snows of the Wah-Satch and Rocky Mountains, with many a turbid stream and rapid river, presented obstacles of no small magnitude to our onward progress. But with a better country before us, and the cool mountain breezes to fan our fevered limbs, we looked forward with stout hearts to the future doubting not that we should yet attain our journey's end.

"*Las Vegas de Santa Clara*," to the traveler going eastward, must always appear beautiful by comparison. The noise of running water, the large grassy meadows, from which the spot takes its name, and the green hills which circle it round—all tend to captivate the eye and please the senses of the way-worn "*voyager*."

If I remember rightly, it was not far from the little Salt Lake that we first met with the Eutaw Indians. At this point we found one of their principal chiefs, "Wacarra," or Walker, as he is commonly called by the Americans. His encampment consisted of four lodges, inhabited by his wives, children, and suite of inferior warriors and chiefs. This party was awaiting the coming of the great Spanish caravan, from whom they intended taking the yearly tribute which the tribe exact as the price of a safe-conduct through their country. I found a vast difference in all respects between these Indians and the miserable beings whom we had hitherto seen. The Eutaws are perhaps the most powerful and warlike tribe now remaining upon this continent. They appear well provided with fire-arms, which they are said to use with the precision of veteran riflemen. I remember they expressed their surprise that the white men should use so much powder in firing at a mark, while to them every load brought a piece of game or the scalp of an enemy. Wacarra (or Walker, as I shall call him) received our party very graciously; in fact, their attentions, so far at least as my humble self was concerned, became rather overpowering, as the sequel will show.

We had been riding hard, and, as I have before stated, our rations were both poor and scanty. But to eat is a necessity; and when food is prepared, to secure your own individual share, even under such circumstances, becomes a duty of considerable importance. As our encampment was not over a hundred yards distant from the lodges of our Indian neighbors, we had scarcely sat down to take breakfast—it ought to have been called dinner, as it was then near noon, and we had eaten nothing since the day before—when Walker's warriors joined us. Now it is a difficult matter for me to eat a meal in comfort when even a dog looks wistfully in my face; and I sat gazing in some perplexity, first upon the tin platter which contained my share of the *atole*, and then at the capacious mouth of a burly chieftain who stood evidently waiting for an invitation to sit down. At length I mustered my courage, and by various signs, which he appeared to have no difficulty in comprehending, ten-

dered a gracious invitation to my red-skinned friend to join me, and taste the *atole*. Now before inviting my guest I had fully determined upon the line of conduct it would be necessary for me to pursue, to obtain anything like a fair portion of the meal. My plan was this: I intended to try my pewter teaspoon, with which I hoped to consume the *atole* faster than my copper-colored friend, should he eat with the long sharp knife which I had destined for his use, fondly trusting that he would cut his mouth if he attempted to handle it rapidly. I have since thought that Mr. Eutaw saw through the whole design, for, as he commenced operations, he favored me with an indescribable look and grunt, at the same time turning the knife in his hand so as to manage it with its back toward him. I saw in a moment that my chances were small, and quickness of execution everything. But it was no use; as the Western men would say, I was "no whar." I worked away with my teaspoon until the perspiration fairly streamed from my forehead, bolting the hot *atole* like a salamander, but all would not do; the Indian, with his broad-bladed knife, took three mouthfuls to my one, and, hang the fellow! even condescended to look at me occasionally in a patronizing sort of way, and nod his head encouragingly. The solid portion of my repast soon grew "beautifully less," but before it entirely disappeared, the Eutaw grasped the plate, and passed it to a friend of his, who stood directly behind him. This fellow literally *licked* the plate clean, and without any relaxation of his almost stoical gravity, turned it upside down, at the same time uttering a significant grunt, as an intimation that a further supply would be acceptable. I looked ruefully at the empty dish, but the dark eyes of my guest were intently regarding me, and I had no time for meditation. So with a desperate determination to do nothing by halves, I handed my large coffee cup, with its contents, to the chief, at the same time smiling as amiably as my experiences would permit. Now this cup of coffee was my last and greatest dependence, as I knew that nothing was to be had in the way of eatables until the following day, and a long ride lay before us. So it was with something more than nervous trepidation that I watched the savage put the cup to his mouth. Here, too, I was buoyed up by a delusive hope: certainly, thought I, he cannot like coffee; the sugar is almost gone, and the beverage so bitter, that I hardly fancy it myself, and this fellow ought to spit it out in abhorrence. I watch his movements with breathless anxiety—he tastes—gives a grunt of uncertainty, and without lowering the cup turns his eye to me, to ask if it is good. I shake my head negatively—could I have spoken in his guttural jargon, I would have made a most impressive speech, to the effect that coffee was a great medicine, harmless to the pale face, but certain death to Indians in general and Eutaws in particular. But, alas! my sign was either unheeded or misunderstood. I sat in speechless agony, while the bottom of the cup was gradually elevated in the air, till—just as I was about commencing an expostulation, my guest uttered a satisfied sigh, and passed the cup to the same person who had cleared the platter. It was all gone—I felt it. Yes; "before you could say Jack Robinson," the second Indian had finished it, grounds and all, and placed the cup, bottom up, upon the

ground. My meal for the day was gone; and I felt that to ask sympathy would only call forth a laugh against myself. So I kept my sorrows within my own breast until some days afterward, when Kit thought it one of the best jokes he had ever heard.

I have fancied that we must have reached Little Salt Lake upon one of my unlucky days, for it seems that I was destined to be cheated in a horse-trade by the same Indian who had consumed my breakfast.

The reader will probably remember my description of the horse which I purchased in California, and which I have alluded to as an animal of terrible experiences. I had found him so worthless upon the route that he had scarcely been ridden; and now the sharp stones of the desert had injured his hoofs so seriously, that I knew it would be impossible to bring him over the rugged country that remained to be crossed. Accordingly, I had the miserable beast, duly paraded, and having got him in such a position that a rock at his back prevented him from lying down, a thing not to be desired until the negotiation for his transfer was ended, I proceeded, by means of signs and the few words of Eutaw which I had learned, to open a treaty for his exchange. My Indian friends, after carefully examining the animal, sent a boy for the horse which they wished to give for him. Pending the return of their messenger, they employed their time in destroying what little of good character my poor steed had ever possessed, shook their heads despondingly over his battered hoofs, and grunted hideously in tokens of their strong disapprobation.

The perfection of horse-flesh (which, alas! was soon to come into my stock) now made his appearance in the shape of a rough-looking Indian pony, who might have been twenty years of age or upward; his Eutaw groom led him by a hair rope, which he had twisted round his nose; but upon a given signal from the chief the lad scrambled upon the animal's back, and began putting the old veteran through his paces, which seemed limited to a one-sided walk, and a gallop which would have done credit to a wounded buffalo bull. As a last inducement, they exhibited his hoofs, which certainly looked *hard* enough in all conscience. After considerable hesitation I was about making the trade upon equal terms, when to my great disgust the chief informed me that he could not think of parting with so valuable an animal, unless I gave him some present to boot. This new demand I was fain to comply with, and parted not only with my broken down horse, but with one of my two Mexican blankets; and many was the time while chilled by the cold breezes of the Rocky Mountains that I thought, with a shiver, of my horse-trade by Little Salt Lake.

Before leaving this encampment, I was invited by Walker to visit his lodge, and accompanied him accordingly. These lodges are made of skins sewed together, with an opening at the top which serves as a chimney for the smoke, the fire being built on the ground in the centre of the lodge. Upon entering the lodge the children crowded round me, admiring the gaudy scarlet cloth with which my leathern hunting-shirt was lined; most of these young people were armed with bows and arrows which they amused themselves by aiming at me. Walker's wife, or



WARRATOR MOUNTAIN.

wives, for I think he had several, were busied in their domestic avocations about the lodge, and one of them (a good-looking squaw of some eighteen or twenty years, who seemed to be the favorite) was kind enough to spread a deer-skin for my accommodation. Wishing to repay her courtesy, I called my servant Juan, and directed him to get a brass breast-plate with the letters "U. S." conspicuously displayed, which I had among my traps, polish it up, and bring it to me. This he did, and I shall never forget the joy of this belle of the wilderness, upon receiving the shining metal. With the aid of a small mirror, which had probably been obtained from some passing trader, she arranged the breast plate (fully two inches square) upon her raven locks, and then, with the air of a tragedy queen, marched up and down in front of the lodge, looking with great contempt upon her envious companions. It was certainly an amusing scene, and goes to prove that vanity may exist as strongly in the character of a Eutaw squaw, as in the breast of a city belle; with this difference, perhaps, that it is exhibited with much less taste among those whose education should have taught them better things.

After leaving the Little Salt Lake, we traveled over or near the Wah-Satch Mountains for several days, meeting with few adventures worthy of note until we reached the mountain snows, which even in the month of June we found several feet in depth. Some of our mules who had never seen snow before — having been reared among the sunny plains of California — showed great uneasiness upon first approaching it, they would stop, try the depth of the drift with their hoofs, and hesitate until fairly spurred into it by their riders. Upon the mountain tops we sometimes encamped upon snow heaps many feet in depth, and while thus situated my mode of protecting myself from the cold during the night, was as follows: I made a small excavation in the side of some drift least exposed to the wind, and then wrapping myself closely in my solitary blanket, I spread my saddle cloths beneath me, and rolled myself into the hole, where I managed to sleep pretty comfortably, even amid the snows of the Wah-Satch Mountains.

In this same section of country, we encamped one evening upon a beautiful little lake situated in a hollow among the mountains, but at so great an elevation that it was, even in summer, surrounded by snow, and partially covered with ice. There we were again visited by the Eutaw Indians, who, as usual, behaved in a very friendly manner. Our provisions had now become so scanty that it was necessary to add to our stock by purchasing what we could from the Indians. From the party who here visited us, we managed to obtain a portion of a Rocky-Mountain sheep, or "big-horn," as it is often called; and, upon Kit's asking for fish, one of the Indians departed, but in a few minutes returned with a fine trout, which we bought for a couple of charges of powder. Our bargain had hardly been placed upon the fire when we discovered that the fish had been killed by an arrow-wound in the back. While we were wondering at this novel mode of taking trout, two of our men came into camp with as many fish as they could carry, and told us that they had caught as many more, but left them upon the banks of the lake. It

seemed that in wandering about, they had discovered a little stream, a tributary to the lake, but quite shallow; this stream they represented as swarming with fish, so that they had gone in and killed them with sticks. To our hungry people this was *more* than good news; and that evening was devoted to the composition of a chowder, which was literally fish '*au naturel*.'

Our supper ended, it was unanimously decided that we should move our camp next day no further than the stream, where we contemplated spending the day in fishing. With this pleasant expectation I betook myself to bed, where I was soon lulled to sleep by a low, monotonous strain which one of our Indian guests amused himself by singing.

By sunrise next morning we were not only settled in our new camp, but up to our knees in the icy water in pursuit of its tenants. If fish keep chronicles, I fancy that those in the waters of Trout Lake will not soon forget us; for such a slaughter of the finny tribe I have rarely seen. For my own part, with an old bayonet fastened to a stick, I caught five dozen—and a twinge of rheumatism, which reminds me of the circum stance even now.

With our former experiences of scanty rations and hard travel, it will scarcely be thought surprising that after a day's rest and our famous feast of chowder, we should feel as if we could have faced not only a whole legion of "Diggers," but the "Old Boy" himself (always supposing that the "Evil One" could haunt so cold a region as the Wah-Satch Mountains). Our course was now for the most part upward; sometimes crossing snowy ridges, where the icy winds made us fairly crouch in our saddles; and then descending into valleys where the pine forests afforded a grateful shelter from the sun.

While traversing one of these gorges, we came suddenly upon seven human skeletons, six of which, bleached by the elements, lay scattered here and there, where the bones had been dragged by hungry wolves along a space of some yards in extent; the seventh, which, from its less accessible position, being sheltered by rocks and, in part, by a fallen tree had remained undisturbed by beasts of prey, seemed extended where its owner died. Upon a further examination of the ground, we concluded that these mournful relics were the remains of some unfortunate party of whites or Mexicans who had been cut off by the Indians. The skeleton which lay alone appeared, from the arrow heads and bullets yet marking the tree which guarded it, to have belonged to an individual of the party who had fought from this shelter until overcome by superior numbers. These surmises afterward proved but too true, as we learned from a band of friendly Eutaws, who reported that the bones which we had discovered were those of a party of Americans from Arkansas, who had been surprised by hostile Indians while resting at noon, and instantly killed, with the exception of one of their number, who snatched up his rifle, retreated to the nearest cover, and there battled with all the energy of despair, killing two of the savages before being dispatched by the arrows of his assailants. It was a sad sight for us to gaze upon these mouldering fragments. None of us could say at what moment their fate might have been ours—to die amid the wilderness, far from friends and home, with t

well to howl over us, and the wild mountain breezes to chant our requiem, as they roared through the sombre branches of the pines. How many sad hearts may have yearned, and how many bright eyes, filled with tears, of the sufferers from "hope deferred," who were yet looking for the brothers and husbands whose fate we had been the first to learn.

I remember celebrating my birth-day, which comes in June (the precise date I will leave the reader to guess, if he be a Yankee), by standing upon the banks of Grand River, and looking with a most rueful countenance and many secret forebodings upon the turbid current of the swollen stream. And well I might. I have said it was in June; and one might suppose that a cold-bath in early summer was no great hardship; but in this case, I found that the association of the month with summer ended with its name; for the strong wind felt more like a December blast as it went rushing by, and the angry torrent at my feet, fed by the melting snows, was many degrees colder than the water of a mountain spring. But this formidable obstacle was to be passed, and how to overcome the difficulty I scarcely knew. Kit, however, solved the problem, by proposing a raft, and accordingly all hands went to work with a will to collect the necessary material from the neighboring woods. Kit, in his shirt-sleeves, working hard himself—instructing here and directing there, and, as usual, proving himself the master-spirit of the party. After much labor, a few logs were properly cut, notched, and rolled into the water, where they were carefully fastened together by binding them with our *réatas*, until this rude expedient furnished a very passable mode of conveyance for a light load of luggage.

Having freighted it as heavily as we dared with our packs and riding saddles, and placed the bags containing the California mails upon the securest portion, we next proceeded to determine who of our party should be the first to swim the stream. Five men were at length selected, and as I was a good swimmer, I concluded to join the expedition as captain. So taking Auchambeau as my first mate, we two plunged into the stream; and having arranged our men at their appointed stations, only waited Kit's final orders, to trust ourselves to the waters. These instructions were soon briefly given in the following words: "All you men who can't swim may hang on to the corners of the raft, but don't any of you try to get upon it except Auchambeau, who has the pole to guide it with; those of you who can swim, are to get hold of the tow-line, and pull it along; keep a good lookout for rocks and floating timber; and whatever you do, don't lose the mail bags." And now with one sturdy shove, our frail support was fairly launched, and with a farewell cheer from our comrade upon the shore, we consigned ourselves to the mercy of the tide.

I have remarked that I went as captain; but once under way, I found that we were all captains; if indeed giving orders did any good where half one's words were lost amid the roaring of the rapids. In fact, we mismanaged the business altogether, until at length I fancy that the poor stream, already vexed beyond endurance, determined to take the matter under its own guidance, out of pity for the nautical ignorance we had displayed; and finally settled the thing by abandoning us in disgust upon the same side from whence we had started, but more than a mile further

down. Ere this operation was concluded, however, it favored me, doubtless in consideration of my captainship, with a parting token; which but for the ready aid of Auchambeau must have finished my adventures upon the spot. I had swam out with a lariat to secure the unfortunate raft to a tree, when the current brought the heavy mass of timber into violent contact with my breast, throwing me back senseless into the channel. Just as I was performing a final feat, in the way of going down, Auchambeau got hold of my hair, which I luckily wore long, and dragged me out upon the bank, where I came to in due course of time.

Our situation was now far from pleasant, the only article of dress which we wore being our hats, the rest of our clothing having been left behind to come by another raft. To go up the rapids against the stream was out of the question; and to cross from where we were, with a considerable fall and jagged rocks just below us, equally impossible. So we had no resource but to shoulder our baggage and travel back on foot, following, as nearly as the thickets would permit, the windings of the river; and uttering more than one anathema upon the thorny plants, which wounded our unprotected feet at every step. It was high noon before we reached camp; and nearly four o'clock ere we were again prepared, and once more summoned up our resolution for a new trial.

This second attempt, after an infinite deal of trouble, proved successful, and we landed upon the opposite bank in a state of almost utter exhaustion; indeed, Auchambeau, from over-exertion, and long exposure to the chilling snow water, was taken, upon reaching the shore, with cramps which convulsed him so terribly that we feared they might even destroy life itself. Our first care was, therefore, for him; and by dint of violent friction and rolling in the sand we succeeded in restoring our patient; and then turned our attention to unloading the raft, which had been partly drawn out of the river, and secured to the trunk of a fallen cotton-wood. In this labor we were assisted by a party of Eutaw Indians who had come down to meet us. In fact, these fellows did the greater portion of the work, as our weary crew were as yet incapable of much exertion. I have since thought that while thus employed we must have looked like Robinson Crusoe, and his man Friday, supposing those distinguished individuals to have been multiplied by five; the wild scenery, the dashing waters, and our own singular costumes (for we were by this time dressed in buffalo robes borrowed from our Indian friends), all combining to carry out the delusion.

Having seen our baggage safely landed, and beheld the raft (bad luck to it, for in this instance I could not "speak well of the bridge which carried me over") go down the rapids, to be dashed against the rocky cliffs below; we ascended the stream, hallooing to our companions to notify them of our safe arrival; the receipt of which information they acknowledged by a hearty cheer. Both parties, with the assistance of the Indians, then prepared to cross our caballada, who were expected to swim the river. With this view, we selected a point upon our side, considerably below the position occupied by the opposite party, where the bank shelved gradually, and afforded a better footing than elsewhere. Here we took our station to attract the attention of the swimming ani.

male by shouting and whistling. Upon our signifying our readiness to receive them, one of the opposite party rode into the water upon the old bell-mare, and the frightened mules were forced to follow, urged on by the yells and blows of their drivers. In a few moments the whole cabalada was under way; the old bell-mare, striking out and breasting the waves gallantly, while the mules, with only their heads and long ears visible above the water, came puffing like small high-pressure steamboats in her wake. The yelling on our side now commenced, in which concert the Indians took the thorough base, performing to admiration; while our Mexican muleteers rent the air with their favorite cry of "*anda mula*," "*hupar mula*." The animals, attracted by the noise, made straight for us; and we soon had the gratification of seeing them safely landed, dripping and shaking themselves like so many Newfoundland dogs.

At this point, however, our good fortune was destined to end. Kit, it is true, with a few men, and a small portion of luggage, made the passage safely; but a large raft, which carried the greater share of our provisions, was dashed against a sawyer in the stream, which separated the logs, leaving the men to save themselves as they best could; this they did with considerable difficulty: but six rifles, three saddles, much of the ammunition, and nearly all our provisions were totally lost. Under these depressing circumstances, our camp that night was any thing but a lively one; the Eutaws being the only persons who seemed to feel like laughing. Indeed, I half think that our loss put them in high good-humor, as they had some prospect of recovering the rifles, when a lower stage of water should enable them to explore the bed of the river. The little that remained of our private mess stores, was now the only certain dependence left to us in the way of food for our whole party. These stores were equally divided by Carson himself; our own portion being the same as that of our men, and the whole would, with economy in using, furnish but three days' scanty rations for each individual. Some of our men had lost their riding-saddles, and were fain to spread their blankets upon a mule's back, and jog along as they best might—a mode of travel which, when the animal's bones are highly developed, I take to be "bad at the best," for the rider. Others of the party had lost their clothing; and I am sorry to say that the number of pairs of "nether integuments" was two less than that of the people who ought to have worn them. But this was a trifle compared with our other difficulties, for there was nobody in those regions who knew enough of the fashions to criticise our dress; and as for ourselves we were in no mood to smile at our own strange costumes. Personally, I had been more lucky than the majority of my companions, having saved my precious suit of deer-skins, my rifle, and a few rounds of ammunition; but, alas! the waters of Grand River had swallowed up my note-book, my geological and botanical specimens, and many of my sketches, a most serious and vexatious loss, after the labor of collecting and preparing them.

Two days' travel brought us to Green River, where we underwent much of the same difficulty in crossing which we had encountered in the passage of Grand River; but we had now learned wisdom from experience, and had, moreover, little left to lose.

The dreaded "third day" which was to see us provisionless at length arrived, and, instead of breakfast, I tried to fill the "aching void" by drawing my belt a hole or two tighter; a great relief, as I can testify, for the cravings of an empty stomach.

As I rode along, reflecting, rather gloomily, I must confess, upon the position of our affairs, and considering where or in what form a supply might best be obtained, I discovered that the same feelings were occupying the minds of most of the party; and before we halted for the night it was moved, resolved, and finally determined, that the fattest of our way-worn steeds should be killed, dressed, and eaten. This idea furnished ample material for contemplation. Eat horse-meat! The very thought was revolting. I had heard of such a thing. Dana tells some story of the kind, I believe; and I remember the chorus of a nautical melody, deservedly popular among seamen, which begins:

"Old horse, old horse, what brought you here?
From Saracen's Head to Portland pier,
I've carted stone this many a year;
Till killed by blows and sore abuse,
They've salted me down for sailor's use."

And so on, through forty lines of doggerel. But then the contemplation of horse-meat, as an edible, had been with me but an abstract idea, which I had never contemplated putting into practice. Now, however, the thing was tangible. To eat, or not to eat, became "the question;" and, after due consideration, Hunger arguing the case on one side, with strong Necessity for an advocate—and Fastidiousness taking the opposite, with Prejudice for her backer, I came to the conclusion that I would not and could not eat horse-flesh. In accordance with this valorous decision, although upon our arrival at camp, a horse (lean, old, and decidedly tough) was actually killed, cut up, and freely eaten of, I alone stood aloof, and went supperless to bed. But it was all in vain; for Starvation is a weighty reasoner, and Hunger gained the day at last. I stood out like a Trojan for eight-and-forty hours, and then "gave in" with as good a grace as possible, and for more than a week ate horse-flesh regularly. Perhaps the reader would like to know how it tasted. I can only say that it was an old animal, a tough animal, a sore-backed animal—and, upon the whole—I *prefer beef*.

During this period of scarcity, we met with several parties of Indians; but found their condition little better than our own; indeed, I believe it would have nauseated even a frequenter of a six-penny "restaurant," to have seen the horrible messes which their women were concocting. But I had got bravely over my squeamishness by this time, and would have dined with a Mandarin, without ever inquiring into the contents of the dishes. Really, I blush to confess it—but I actually tried to buy a fat puppy, which, truly and conscientiously, I intended to have eaten. I enticed the brute (which, by the way, was a short-haired animal, with a stumpy tail, and decidedly mangy look) into the lodge of its owner, and then, by means of signs, opened a negotiation for its purchase. I offered the extent of my available capital—three cartridges and five brass buttons

I said, "bow-wow," pointing first to the dog, and then to my mouth, which already watered in anticipation of the dainty; but though my proposition was comprehended, and the savage looked upon the buttons with a longing eye, he seemed unwilling to trade; and, finally, explained his reluctance, by pointing with one hand to the puppy, while he gently patted his capacious stomach with the other: thereby giving me to understand that the beast was intended for his own private eating. Finding that the dog was not to be obtained by fair means, and urged by the necessity to secure him at all hazards, I returned to camp, and dispatched "Juan" as a foraging party of one, to invade the enemy's camp and carry off the puppy, "*nolens volens*." But he found the animal (who may have suspected something from the intinctness with which I regarded him) safely housed, and abandoned the enterprise in despair.

Upon reaching the borders of the Rocky Mountains, our situation, so far as food was concerned, became somewhat improved. We found this portion of the country to be by far the most pleasing and interesting which we had yet seen — every turning of the trail disclosing some new beauty of its grand and majestic scenery. Our course, except while crossing a dividing ridge, lay mostly along the mountain passes, where huge cliffs reared their rocky barriers, upon either hand crowned with various trees, the pine and a species of aspen being the most prominent. These valleys abounded in game, among which I noticed the black-tailed deer, elk, antelope, and the Rocky Mountain sheep or "big-horn," as they are sometimes called. This abundance, however, proved rather a matter of vexation than a real benefit; for the animals were so wild and unapproachable, that our hunters were often disappointed in obtaining meat; so that but for the Indians, who were here better provided, we should have been obliged to return to the horseflesh.

I shall not soon forget accompanying Carson, about this time, on one of our many excursions to procure venison. We had discovered a doe with her fawn in a little grassy nook, where the surrounding rocks would partially screen us from their view, while we crawled within gunshot. Dismounting with as little noise as possible, I remained stationary, holding our horses, while Kit endeavored to approach the unsuspecting deer. We were both somewhat nervous, for our supper and breakfast depended upon our success; and we knew well from former experiences that if the doe heard but the cracking of a bush she would be off like the wind. Kit, therefore, advanced with somewhat more than ordinary care, using every caution which a hunter's education could suggest, and at length gained a point within rifle-shot of his prey. My nervousness was now at its height; why don't he fire? thought I. But Kit was cooler, and calculated more closely than myself. At last I saw him bring his rifle to his eye, at the same time showing himself sufficiently to attract the attention of the doe, who raised her head a little to get a look at the object of alarm, thus offering a better mark for his rifle; a moment more, at the report of the piece, the doe made a convulsive bound, and then rolled upon the sward. To tie our horses, cut up the deer, and attach its quarters to our saddles, was the work of twenty minutes more; and then, remounting, we pursued our way, making quite a triumphal entry into

camp, where Kit's good luck rejoiced the hearts and stomachs of every man in the party; it was really a great event to us in those days, and we had that night a right jolly time of it.

From those rugged mountain paths we at length emerged, descending into the beautiful plains known as Taos Valley. Here we had scarcely gone a day's journey, before we discovered a great increase in the amount of "Indian sign," and also a change in its appearance, which, though hardly perceptible to an inexperienced eye, was too surely read by Carson's not to beget great uneasiness.

"Look here," said Kit, as he dismounted from his mule, and stopped to examine the trail; "The Indians have passed across our road since sun-up, and they are a war party, too; no sign of lodge-poles, and no colt tracks; they are no friends neither; here's a feather that some of them has dropped. We'll have trouble yet, if we don't keep a bright look-out."

Our camp that night was upon the borders of a stream which had been swollen by the melting of the snows, until the neighboring prairies had been overflowed to a considerable extent. This deposit of water, now grown partially stagnant, had given birth to myriads of mosquitoes, who at evening arose like a mighty cloud from their marshy beds to precipitate themselves upon our devoted camp. Talk about the plagues of Egypt! I will compromise for any amount of frogs and locusts, or even take fleas by way of variety, but defend me from those winged torments, called mosquitoes. These fellows, too, were of the regular gallinipper tribe, of which old officers who have seen service in the everglades of Florida tell such wondrous tales. To repulse this army of invasion we made smokes, and hovered over them until our eyes were literally a "fountain of water;" but, though whole battalions were suffocated and perished in the flames, millions rushed in to fill their places and renew the fight. Our poor mules, equally annoyed with ourselves, showed more sagacity than I gave them credit for, by getting together in a body, and standing in pairs, side by side, so that the tail of one was kept in motion near the head of the other, thus establishing an association for mutual protection, which kept the insects in some measure at a distance. But it certainly was a ludicrous sight to watch the long-eared crowd with their tails going like the sails of an assembly of windmills, and to observe their look of patient resignation when some mosquito, more daring than his fellows, broke through their barrier, biting keenly in defiance of their precautions. Finding it impossible to remain by the camp fires, I at length rolled myself up in a Mexican blanket, covering my head so completely that I excluded not only the mosquitoes, but the air, and thus remained in a state of partial suffocation, listening to the shrill war song of our assailants, until the cooler winds of midnight forced them to leave the field, and take refuge in the oozy swamps.

We were up before the sun on the following day, and continued on down the valley. Near noon, Carson discovered a number of what appeared to be Indians, some distance ahead, in a hollow, where a few stunted trees partially concealed them from our view. A little beyond their camp we perceived a large number of animals grazing, which be-

HOSTILE INDIANS.

betokened the presence of a party as large, or nearly as large, as our own. As these people were evidently unaware of our proximity, we called halt, and after a moment's consultation, determined to make a charge, and as we seemed pretty equally matched in regard to numbers, to take, if necessary, the offensive line of conduct. With this view, we selected ten of our best men, and having arrayed our forces, came down, so far as determination was concerned, in a very gallant style, each man with his rifle in his hand, firmly resolved "to do or die." But, alas, for the poetry of the affair, we could boast but little of the

"Pomp, pride, and circumstance of glorious war,"

either in our dress or accoutrements. "Falstaff's ragged regiment," so often quoted as the *ne plus ultra* of volunteerism, were regular troops when compared with our dashing cavaliers. We looked ragged enough and dirty enough in all conscience, without any extra attempt at effect, but, as if to complete the picture, the two unfortunate individuals who wanted "unmentionables" were front-rank men, and your very humble servant, the author, had a portion of an under-garment, which shall be nameless, tied round his head, in lieu of a hat. Take us all in all, we certainly did not neglect the advice of one of Shakspeare's heroes, who bids his followers "hang out their banners on the outer wall." The mules, too—confound their stupidity!—ruined the affair, so far as it might be considered in the light of a secret expedition, by stretching out their heads, protruding their long ears, and yelling most vociferously. "Confound your stumbling body!" said one old mountaineer to his steed, (a wall-eyed marchio,) "maybe you'll have something to make a noise for, when you get an Apache arrow slipped into you." But our famous charge on mule-back was brought to an abrupt and inglorious close upon reaching the camp of our supposed enemies, by the discovery that they were nothing more nor less than Mexican traders, who had penetrated thus far into the wilderness for the purpose of trafficking with the Indians.

From these fellows we obtained some useful, but not particularly encouraging information, to the effect that a party of mountaineers, larger than our own, and better supplied with arms, had been attacked by the Indians near the point at which we expected to encamp that night, defeated, and despoiled of their property. There was nothing before us, however, but to push ahead, and that evening found few in our camp who cared to sleep soundly. With a view to greater watchfulness, our guard was doubled, the sentries crawling to and from their posts; and all making as little disturbance as possible. The fires of an Indian camp—probably a part of the same band who had defeated the mountaineers—shone brightly from a hillside about half a mile distant; and having nothing to cook, we deemed it most prudent to extinguish our own, which had been lighted to drive away the mosquitoes. During the night great uneasiness among the animals betokened the presence or close vicinity of lurking Indians; and Kit, whose long acquaintance with the savages had taught him a perfect knowledge of their modes of warfare, believing that they would attack us about daybreak, determined to steal a march upon the enemy. In pursuance of this object, we saddled our beasts at mid-

night, and departed as noiselessly as possible, traveling by starlight until the first glimmer of dawn, when we paused for a few moments to breathe our tired animals, and then continued on.

We had, upon leaving our last night's camp, nearly one hundred miles to travel before reaching the first settlements in New Mexico, the nearest place of safety; and it was now determined to make the distance without delay. Accordingly, we pressed on as rapidly as the condition of our cattle would permit, stopping only to shift our saddles to one of the loose animals, when those we rode showed signs of giving out. Late in the afternoon we had, by the free use of whip and spur, reached a point some eighteen miles distant from the first Mexican habitations.

I was just beginning to feel a little relieved from the anxious watchfulness of the last few days, and had even beguiled the weariness of the way by picturing to myself the glorious dinner I would order upon reaching Santa Fé, when Carson, who had been looking keenly ahead, interrupted my musings, by exclaiming, "Look at that Indian village; we have stumbled upon the rascals, after all." It was but too true—a sudden turning of the trail had brought us full in view of nearly two hundred lodges, which were located upon a rising ground some half a mile distant to the right of our trail. At this particular point the valley grew narrower, and hemmed in as we were upon either hand by a chain of hills and mountains, we had no resource but to keep straight forward on our course, in the expectation that by keeping, as sailors say, "well under the land," we might possibly slip by unperceived. But our hope was a vain one; we had already been observed, and ere we had gone a hundred yards, a warrior came dashing out from their town, and, putting his horse to its speed, rode rapidly up to Carson and myself; he was a finely formed savage, mounted upon a noble horse, and his fresh paint and gaudy equipments looked any thing but peaceful. This fellow continued his headlong career until almost at our side, and then, checking his steed so suddenly as to throw the animal back upon its haunches, he inquired for the "capitan" (a Spanish word generally used by the Indians to signify chief); in answer to which, I pointed first to Carson, and then to myself. Kit, who had been regarding him intently, but without speaking, now turned to me, and said: "I will speak to this warrior in Eutaw, and if he understands me it will prove that he belongs to a friendly tribe; but if he does not, we may know the contrary, and must do the best we can: but from his paint and manner I expect it will end in a fight anyway."

Kit then turned to the Indian, who, to judge from his expression, was engaged in taking mental, but highly satisfactory notes of our way-worn party, with their insufficient arms and scanty equipments, and asked him in the Eutaw tongue, "Who are you?" The savage stared at us for a moment; and then, putting a finger into either ear, shook his head slowly from side to side. "I knew it," said Kit; "it is just as I thought, and we are in for it at last. Look here, Thomas!" added he (calling to an old mountain man)—"get the mules together, and drive them up to that little patch of chapperal, while we follow with the Indian." Carson then requested me in a whisper to drop behind the savage (who appeared determined to accompany us), and be ready to shoot him at a minute's

warning, if necessity required. Having taken up a position accordingly I managed to cock my rifle, which I habitually carried upon the saddle, without exciting suspicion.

Kit rode ahead to superintend the movements of the party who, under the guidance of Thomas, had by this time got the pack and loose animals together, and were driving them toward a grove about two hundred yards further from the village. We had advanced thus but a short distance, when Carson (who from time to time had been glancing backward over his shoulder) reined in his mule until we again rode side-by-side. While stooping, as if to adjust his saddle, he said, in too low a tone to reach any ears but mine: "Look back, but express no surprise." I did so, and beheld a sight which, though highly picturesque, and furnishing a striking subject for a painting, was, under existing circumstances, rather calculated to destroy the equilibrium of the nerves. In short, I saw about a hundred and fifty warriors, finely mounted, and painted for war, with their long hair streaming in the wind, charging down upon us, shaking their lances and brandishing their spears as they came on.

By this time we had reached the timber, if a few stunted trees could be dignified with the name; and Kit, springing from his mule, called out to the men, "Now boys, dismount, tie up your riding mules; those of you who have guns, get round the caballada, and look out for the Indians; and you who have none, get inside, and hold some of the animals. Take care, Thomas, and shoot down the mule with the mail bags on her pack, if they try to stampede the animals."

We had scarcely made these hurried preparations for the reception of such unwelcome visitors, before the whole horde was upon us, and had surrounded our position. For the next fifteen minutes a scene of confusion and excitement ensued which baffles all my powers of description. On the one hand the Indians pressed closely in, yelling, aiming their spears, and drawing their bows, while their chiefs, conspicuous from their activity, dashed here and there among the crowd, commanding and directing their followers. On the other side, our little band, with the exception of those who had lost their rifles in Grand River, stood firmly around the caballada; Carson, a few paces in advance, giving orders to his men, and arranging the Indians. His whole demeanor was now so entirely changed that he looked like a different man; his eye fairly flashed, and his rifle was grasped with all the energy of an iron will.

"There," cried he, addressing the savages, "is our line: cross it if you dare, and we begin to shoot. You ask us to let you in, but you won't come unless you ride over us. You say you are friends, but you don't act like it. No, you don't deceive us so, we know you too well; so stand back, or your lives are in danger."

It was a bold thing in him to talk thus to these blood-thirsty rascals; but a crisis had arrived in which boldness alone could save us, and he knew it. They had five men to our one; our ammunition was reduced to three rounds per man, and resistance could have been but momentary; but among our band the Indians must have recognized mountain men, who would have fought to the last, and they knew from sad experience that the trapper's rifle rarely missed its aim. Our animals, moreover,

worn out as they were, would have been scarcely worth fighting for, and our scalps a dear bargain.

Our assailants were evidently undecided, and this indecision saved us; for just as they seemed preparing for open hostilities, as rifles were cocked and bows drawn, a runner, mounted upon a weary and foam specked steed, came galloping in from the direction of the settlements, bringing information of evident importance. After a moment's consultation with this new arrival, the chief whistled shrilly, and the warriors fell back. Carson's quick eye had already detected their confusion, and turning to his men, he called out, "Now boys, we have a chance; jump into your saddles, get the loose animals before you, and then handle your rifles, and if these fellows interfere with us we'll make a running fight of it."

In an instant each man was in his saddle, and with the caballada in front we retired slowly; facing about from time to time, to observe the movements of our enemies, who followed on, but finally left us and disappeared in the direction of their village, leaving our people to pursue their way undisturbed. We rode hard, and about midnight reached the first Mexican dwellings which we had seen since our departure from the Pacific coast. This town being nothing more than a collection of shepherds' huts, we did not enter, but made camp near it. Here also we learned the secret of our almost miraculous escape from the Indians, in the fact that a party of two hundred volunteers were on their way to punish the perpetrators of the recent Indian outrages in that vicinity; this then was the intelligence which had so opportunely been brought by their runner, who must have discovered the horsemen while upon their march.

It is almost needless to say that we slept the sleep of tired men that night. I for one did not awake with the dawn. Our tired animals too appeared to require some repose ere they renewed their labors; and it was therefore decided that we should take a holiday of rest before departing for Taos, now distant but one day's journey. I remember celebrating this occasion by visiting one of the Mexican huts, where I ordered the most magnificent dinner that the place afforded, eggs and goat's milk, at discretion — if discretion had any thing to do with the terrible havoc we made among the eatables, a thing which on reflection appears to me more than doubtful.

Early upon the following day we resumed our march, and that evening terminated our journeyings for a season, by bringing us to the Mexican village of Taos, where I was hospitably entertained by Carson and his amiable wife, a Spanish lady, and a relative, I believe, of some former governor of New Mexico.

During our sojourn I visited most portions of the town, which, beyond the fact of its having suffered in former days from the chances of intestine warfare or foreign invasion, has little to commend it to the notice of the traveler. Its inhabitants exhibit all the indolent, lounging characteristics of the lower order of Mexicans, the utter want both of moral and mental culture making itself every where apparent. These people, who know no higher duty, and acknowledge no purer rule of conduct than a blind compliance with the exactions of a corrupt priesthood, regard honest labor as a burden, and resort to it only when driven by their necessities.

Drinking, smoking and gambling consume the greater portion of their day; while nightly fandangoes furnish fruitful occasions for murder, robbery, and other acts of outrage. I speak of the country as it impressed me at the period of my passage through it, some years ago, when these remarks were applicable to a large majority of its male population. It is but just, however, to state, that the women of New Mexico toil harder, and in this respect are more perfect slaves to the tyranny of their husbands, than any other females, if we except the Indians, upon this continent. They are literally "hewers of wood and drawers of water;" but, unlike their cowardly and treacherous lords, their hearts are ever open to the sufferings of the unfortunate. Many have borne witness to the fact for the wounded mountaineer, the plundered trader, and fettered prisoner, dragged as a triumphal show through their villages by men who never dared to meet their captives upon equal terms in the field, have experienced sympathy and obtained relief from these dark-eyed daughters of New Mexico.

The houses of Taos, like those of Los Angeles in California, are for the most part built of *adobes*, with walls of great thickness, the windows being narrow, and strongly barred with iron rods, which, while they afford a greater degree of security to the residents in times of danger, give the place a gloomy, prison-like appearance, which is far from agreeable. In the arrangement of the interior of their dwellings, as well as in the character of the furniture which they contain, the New Mexicans differ greatly from any of the Spanish race whom I have hitherto seen. The sides of their rooms are provided with huge rolls of "*sarapes*" (a kind of coarse blanket, which forms one of their principal articles of trade with the adjoining provinces, being largely manufactured by the women of the country). These rolls answer the double purposes of beds by night and sofas by day. With the exception of these changeable conveniences, as one apartment, which serves as kitchen, parlor, and bedroom, for a whole family, boasts no other moveables, unless, indeed, some aristocratic "*sico*" indulges in the luxury of a bench or table fashioned of native wood, and so rudely carved and put together that it would have done no great credit to the skill of our friend Robinson Crusoe, if found in his habitation.

Both rich and poor, however, agree in appropriating one end of their dwellings to a sort of family altar or chapel, where rude engravings of *pasos*, images intended to represent the Savior, or "*La Madre de Dios*," and relics, and consecrated rosaries, are displayed around a huge crucifix, which occupies the centre of the wall on that side of the apartment. Religious images, particularly upon high "*fiestas*" and holidays, are decked by the females of the family with all sorts of tawdry ornaments; on such occasions it is by no means uncommon to see a doll representing the Virgin Mary arrayed in a muslin frock, trimmed with artificial roses, and festooned with ribbons of the gayest hues. Here and there are oil paintings; a worse copy of a bad picture, or, it may be, a miserable "*Old Master*," occupies the post of honor, and portray the saints, angels, and demons in every possible attitude, and engaged in every improbable avocation. As an instance of the singularity of these

productions, I need only give an example of one of the ludicrous modes of depicting Scripture history which came under my own observation.

In the "*casa*" of a New Mexican "*rico*" stands, or rather hangs, a picture which I was requested by its owner to examine. He remarked that it was held to be uncommonly handsome, and valuable withal. After some little difficulty, I managed to penetrate the veil of dust, varnish, and asphaltum with which time and the picture cleaners had kindly shrouded it, and was rewarded for my trouble by the discovery that the artist (whose ideas upon perspective seemed somewhat *celestial*) had chosen for his subject the sacrifice of Isaac. Abraham—who stands upward of six feet—in a yellow uniform coat and blue striped pantaloons, with cavalry boots, spurs, and mustaches to match—is about putting an end to Isaac (whose dress, with the exception of the mustaches, is got up in nearly the same military style as that of the patriarch) by blowing out his brains with an old-fashioned blunderbuss, the muzzle of which is close to Isaac's right ear. The angel, however, has arrived just in the very nick of time; for as Abraham, with averted head, is pulling trigger, the celestial visitor discharges a torrent of water from a huge squirt directly into the priming of the gun, thereby saving the brains of the intended victim. As regards the coloring of this precious "work of art," I will only observe that it would probably, with a little smoking, bring a high price in the New York market as a most undoubted "*original*."

The concluding paragraphs of my Rocky Mountain narrative chronicled the fact that my friend Carson had a wife who was then residing in Taos. Now it was evident that Kit felt disposed to linger by his own fireside to the last moment which duty would permit; and when we remember the long and weary days of peril and fatigue which our adventurous mountaineer must necessarily undergo before revisiting his home, few of our lady readers will wonder at the wish, however strange it may appear to those unfortunate Benedicts who have found the silken chains of matrimony grow heavier in the wearing. To carry out his design, it was mutually agreed that I should depart for Santa Fé with the greater number of our men, and there await the arrival of Carson, who, with fresher animals, proposed accomplishing the distance—upward of seventy-five miles—in about one third of the time which would be consumed by our tired and foot-sore beasts in reaching their destination.

It was a pleasant morning in the month of June, at about 10 o'clock, judging by the shadow of an old *adobe* church, which serves as a sort of town clock or sun-dial to the denizens of Taos—when I bade Kit a final good-by, with a hearty shake of the hand, and flung myself into the saddle, and turned the face of my "little gray," and mine own in consequence, toward that portion of our party who had already lessened the distance between themselves and "*La Ciudad de Santa Fé*" by a good Mexican league—which I take to be the longest in the world.

I had scarcely cleared the town by a couple of miles, when, while jogging soberly along with a greater feeling of security than I had hitherto experienced during my recent travel, I made my mule's laziness an excuse for relapsing into my old habit of day-dreaming; for the better

enjoyment of which I got an easy position in the saddle, at the same time loosening the reins. It was not long—counting by minutes—before my sagacious “little gray” discovered that she could loiter, for the time being, with impunity. Having settled this fact to her own satisfaction, she next proceeded to slacken her gait from a dead march to a shuffle, and finally halted outright, to devote herself to a more profitable discussion of the grasses fringing the roadside below, while her master “chewed the cud of sweet or bitter fancy” above. We might have passed a half an hour in this stationary way, the mule botanizing and I ruminating, when, just as I had finished peopling a little imaginary world of mine own, I found myself “brought up all standing,” nautically speaking, by the sudden report of an *escopeta* fired by some unseen hand from the thicket-skirted bluff overhead; which, coupled with the sharp whiz of a ball within anything but a pleasant proximity to my right ear, astonished me not a little. But the *voyageur* through the wilds of the Far West soon learns to think and act promptly, and my two months upon the road had already given me some slight experience: so without waiting for a verbal explanation, I sent a ball and half a dozen buckshot to the probable whereabouts of my unknown antagonist; and then, finding myself contending single-handed with an ambushed enemy, and considering the chances of a fight under existing circumstances decidedly hazardous, I plied whip and spur with right good-will until my “little gray” brought me safely up to the rear-guard of our party. Upon relating my adventure, our mountaineers “allowed that a greaser wanted to raise my *har*,” which, being translated into plain English, signifies that I had that day served as a target for some prowling Mexican.

In traversing the old road between Taos and Santa Fé, the eye of the traveler is oftentimes arrested by rude wooden crosses half imbedded in stone-heaps. These crosses mark the spot where some one has been murdered by hostile Indians, or the equally formidable *ladrones*—as the banditti of Mexico are usually called. The stone-heaps which encircle the base of these rude structures are, as I am told, accumulated by a custom of the country which requires each Mexican who passes them to add a stone to the pile already gathered, and mutter a prayer for the repose of those who slumber so dreamlessly below. If the frequent recurrence of these sad memorials of crime be taken as a proof, the number of persons who die a violent death in New Mexico must be very great.

It was nearly sunset, when the close of our first day's travel brought us to the banks of a clear but rapid brook, which wound its way through the narrow street of a little Mexican village. Here we encamped; and while still engaged in removing the saddles from our weary beasts, we received a deputation of the inhabitants, who sent a *fair* representation, in the shape of some half a dozen *señoritas*, who brought eggs, goats' milk, and *tortillas*—the sum total of the products of the place. Each and all of these they were willing to dispose of to their “*amigos*,” *Los Americanos*, for a pecuniary consideration. But, as their “American friends” were just then decidedly deficient in funds—five dollars being a large estimate of the amount of “circulating medium” in the hands of our

party — and, moreover, as we confidently expected that the same state of things would continue until relieved by the pay-master, their traffic prospered poorly.

But our inability to trade seemed in no wise to lessen their sociability, for our visitors continued to come in until every man, woman, and child in the rancho had favored us with their company. Among others, the village priest figured most conspicuously, and, from his clerical dress, to say nothing of his ample rotundity of figure, attracted no small share of my attention. Were I to attempt a description of Father Ignatio, I should say that his style, though peculiar, was not unlike that of Saint Nicholas of Christmas holiday memory, for

"He had a broad chin, and a little round belly,
That shook when he laughed like a bowl full of jellie."

Indeed, I am inclined to suspect that the worthy priest was a man of the world, who loved better to gather life's roses than to encounter its thorns; preferring a good dinner and a long afternoon *siesta*, with other carnal enjoyments, to the performance of a penance or the keeping of a fast.

By nightfall our camp would have furnished a rich subject for Woverman's pencil, as the wild-looking figures flitted to and fro; now strongly marked and standing out in bold relief against the ruddy glare of the fire-light, and then growing dim and shadowy as they retired into the gloom. We were a motley group withal — here a blanket-covered Mexican, with his gaudy *sarape* and broad-brimmed *sombrero*, and there a "Mountain man," who, with his patched and weather-stained hunting-shirt, long hair, and matted beard, looked quite as uncouth in our own fantastic garb; while at intervals amid the throng laughed a bevy of dark eyed *señoritas*, with flowing hair and coquetish scarlet petticoat, just long enough to display a taper foot and faultless ankle; who chatted and smoked their tiny *cigarrillos* with a *sang froid* and freedom from restraint which would have rivaled even the assurance of our fashionable belles. And now, though it be a digression, permit me to say that I like the style of these same daughters of Mexico. There is little of the affected fine lady about them, it is true. They are nothing more or less than women; and better still, woman as she comes from her Creator's hands, with eyes, teeth, hair, and figures — ay, and for that matter, *hearts* too, occasionally — founded upon the very best models — Dame Nature's own. In a word, they are women unstayed and unpadded, who have gained nothing from conventionalism, and have grown up to their full estate in blissful ignorance of a milliner's modes.

As I stood gazing upon the busy scene, thinking to myself that it would have seemed passing strange to some of my polished city friends, I was interrupted in my meditations by the fat fingers and unctuous voice of Father Ignatio, who tapped me upon the shoulder, at the same time whispering an invitation to drink a quiet glass of *aguadiñente* with him at his own particular sanctum which stood, as its jovial occupant kindly observed me, at not great distance from our camp, near the end of the *calle*.

I have hinted that the Friar was a "jolly dog." I will now go farther, and declare that his notion of a supper—a supper for two—was, to a man who had spent twelve hours in the saddle, by no means a bad one. True, we lacked deviled turkey and oysters; but the chocolate, and the omelette, and "hotch-potch," savoring strongly of red peppers—prepared as my reverend host assured me, with an indescribable roll of his eye, by one of the prettiest *mñas* in the village—proved rather appetizing; nor was this by any means the ultimatum of the feast; for with a sly glance from the window to discover if any prying loiterer was near—not (as the good father explained to me) "for fear of scandal; for a Mexican priest—*grácious a Dids*"—(here the old sinner smacked his lips) "did pretty much as he pleased;" but lest some thirsty neighbor should drop in to share the liquor—my host unlocked a hidden closet in the wall, and brought forth a weighty flask, whose cobwebbed sides and well-sealed mouth gave fair promise of a good thing to come. The Padre's Bardolphian nose grew a shade rosier as he uncorked it; and his little black eyes fairly twinkled as, with a laudable desire to prevent mistakes, he carried it to his lips.

"To your good health, my son; may you live a thousand years," said the Priest, as, after a preparatory dusting, he proceeded to test its contents.

I watched my reverend friend's movements with some degree of anxiety; for the receptacle, large as it was, was well tilted ere, with a long-drawn sigh and a look of fond regret, he lowered it to pass it to his guest.

And now, though the "Brick Lane Branch of the Grand Junction United Ebenezer Temperance Society," stood in the breach and forbade its utterance, I will say that that Friar was most assuredly a trump; for the flask, instead of containing the execrable *aguadiente* of the country, as my first invitation had led me to suspect, was fragrant of as fine old Cogniac as ever slumbered in the cellar of a gouty peer.

But as "enough is as good as a feast," and as I did not desire to follow too strictly the example of my reverend friend, who took his liquor in its primitive state, I poured a portion into a little tin "conveniency" which usually accompanied me upon my travels, and having added an equal quantity of a weaker beverage, drank, with all the ceremony which the gravity of our acquaintanceship demanded, to his Church, and its worthy representative. The ice being now fairly broken, the friar came out gloriously, and told more good stories than my limited stock of Spanish would enable me to appreciate.

I have a recollection of assisting him some time after midnight in the performance of *La Ponchada*, the national air of Mexico, when, being a firm believer in the virtues of temperance and sobriety, and finding that my new friend was in a fair way to make a night of it, I rose, and plead my long day's march as an apology for so *early* a leave-taking—to the necessity of which the Padre reluctantly assented, at the same time proffering his services to see me *safe home* (he had drank thrice to my once), an offer which the unsteadiness of his legs might possibly have interfered with his fulfilling

Had the Padre been wise, he would most certainly have followed my example. But, so far from seeking repose, I caught, as I walked down to my camp, a glimpse of the reverend man, as he passed between the window and the light, with the bottle clasped lovingly in one hand while the other kept time to the chorus of melody, which, so far as I could judge, savored more of punch than prelaty.

I must not forget to remark that the Padre's assistant (a little dried up Mexican, the very antipodes of the priest) said something in the morning of a sound like that of a person dancing in the Father's room near daybreak. But the latter clause must have been a scandal. At all events, his reverence professed himself unable to account for it, unless, indeed, it might have been "a deception of the author of all evil, who was ever on the watch to take advantage, by interrupting the devotion of a Christian like himself." I give the priest's explanation in his own words; and for mine own opinion in the matter, I can only say that I should be sorry to differ with him in a thing of such trivial importance.

We were up betimes on the ensuing day; but as I felt, after my ventry supper, by no means anxious to hasten our departure, it was fully ten o'clock ere we had repacked our mules and were once more ready for the road.

The bill of fare at breakfast was — thanks to the kindness of my revered friend, the Padre, who came down to share it — considerably improved by the addition of some of the odds and ends of last night's entertainment, to say nothing of half a gallon of goat's milk, and a couple of dozen of new-laid eggs, sent in by "particular request." And then, for pleasant company and instructive conversation to season it, I will back the jovial friar (who looked as rosy and good-humored as if there were no such sins as old brandy and midnight revels in his decalogue) against any six-bottle parson in all Christendom, the English fox-hunting districts to the contrary notwithstanding. Long life, say I, to jolly Father Ignatio, wherever he may be.

But every thing comes to an end at last in this sublunary sphere, and so did our breakfast, and with it my acquaintance with the priest, who showered upon me every blessing of the Church as he stood by the wayside upon that memorable morning, with his bald pate shining pleasantly, like a mirror in the sun, waving his clerical *sombrero* in the air, and shouting lustily after me until a sudden turning of the road hid our party from his view and separated us forever.

Our journey for the day was marked by no particular incident, except that many of our mules showed symptoms of giving out; and even my indefatigable little gray, who had borne up amid all the privations of hard travel and short rations, threatened momentarily to drop down upon the road. But as we expected to reach Santa Fé upon the evening of the morrow, we felt any thing but despondent; and good stories, sly jokes, and pleasant allusions to our adventures by the way seemed the occupation of all.

Having completed our allotted distance, we encamped for the night at a rancho where a Mexican "*Alcalde*" — a very different sort of person

from my friend the Priest — gave me a crusty invitation to supper, and nearly compassed the destruction of my digestive organs through the medium of over-done eggs and raw *aguadiente*. I was the gainer, however, by his surliness, for it induced me to make a virtue of necessity, and retire at a seasonable hour. As I pronounced a benediction upon the servant of the Church, so will I record my malediction against the representative of the civil authority. That he may fall a victim to the miseries of his own society is the the very worst evil which I could wish *Señor Alcalde Don Antonio Guerrara*.

Our start upon the third and, we hoped, final day's travel between Taos and Santa Fé, was an early one. It was just sunrise by the luminary in question; not to mention an authority, which, as threatening clouds were darkening the eastern horizon, might have been considered an equally reliable sign — I refer to the Alcalde's chicken-yard, a preserve well stocked with fowls, as I am inclined to suspect my unscrupulous follower Juan had ascertained during the night, or else whence came the raw material for the stew on which we breakfasted? Perchance it was an inquiry after one of his missing family that induced an old rooster, of corpulent dimensions and pompously martial air, to assume so elevated a position upon the posts of the *corrál*, and vociferate his peculiar reveillé so noisily, as our party filed into the main road. Let me advise the reader, if he should ever become a traveler in the provinces of Mexico, to instruct his servant in the art of foraging; for if he prove an adept, it shall be well for his master, who might otherwise go supperless to bed. To do my "treasure" justice, he was no fool, at least in that respect.

By noon we had reached a Mexican village, where, as Little Gray, my "ultimatum" in the way of transportation, was now upon her last legs, being scarcely able to carry herself, to say nothing of a rider, I concluded to tarry and dine, intending to push on and overtake the party, or, at all events, reach Santa Fé that night. I must confess that I was not a little influenced in this determination by the bright eyes of two new-made acquaintances — very pretty señoritas, who, in obedience to the orders of their papa (Don Alphabet I shall call him, for his names seemed legion), were then busily employed in cooking choice specimens of the usual products of the country — eggs, kid, and goat's milk. Apropos to which, it appeared to me, in traversing New Mexico, that the bill of fare in this primitive region would have suited Alexander Selkirk admirably; for to that heard-headed animal, the goat, the New Mexicans are indebted not only for their food and bedding, but occasionally for the very raiment which they wear. Having finished my repast, which I took sitting *à la Turqué*, using my hunting-knife and those yet earlier inventions, the fingers, as a substitute for the ordinary table implements, I lit a cigar, the sole survivor of a treasured few; and with the aid of a huge roll of "*sarapes*" by the way of a lounge, and the Don's amiable daughters for society, I smoked and complimented the young ladies in bad Spanish, thus passing the time until *siesta* in a highly satisfactory manner. This same *siesta* — which, by the way, means in plain English an afternoon nap — was a luxury which I had been wise to have omitted.

for I slumbered so soundly that it was not until the lengthening shadows betokened the sinking of the sun that I recollected the weary leagues between myself and Santa Fé yet to be accomplished. Then, with somewhat of reluctance I ordered out my mule, who had been dining in the *corrál*, and now came most unwillingly to the door. Upon offering money for the attention which I had received, it was, much to my surprise, and for the first time in my campaigning experience, declined by my host. So I had no alternative but to make my "*adios*," adding a "*mille gracias*"—thousand thanks—as a receipt in full.

Once more upon the road, I experienced so much of that chilly uncomfortable feeling which is connected with a departure from pleasant quarters, and the undertaking of a long and lonely ride, that I determined to shorten its duration, if it were possible, and with this intention halted to consult a peasant who was lazily working upon one of the numerous irrigating ditches which are the inseparable assistants of New Mexican agriculture. This fellow, upon understanding that I was in haste, recommended "*el señor*" to take a certain by-road, which he pointed out, assuring me that it would be the nearest by more than a league. It was an evil hour that I listened to his advice, and departed from the beaten track to follow an almost unused bridle-path, which the gathering shadows of evening rendered yet more indistinct. But, buoyed up by hopeful anticipations of rest, and a gay time in Santa Fé, I kept jogging on while daylight and twilight, and the pale radiance of a cloudless moon worked their changes in the aspect of earth and sky; changes which succeeded each other with a rapidity best accounted for by my own impatience and the solitary weariness of the way. By midnight I had become a firm believer in three conclusions: First, that I was lost. Secondly, that "Little Gray" and myself were exceedingly tired, and hungry withal. And thirdly, that the sooner we made camp the better. In accordance with this latter determination, I halted at the first pool of water, relieved my weary mule of her saddle and bridle, fastened one end of the *reata* round her neck, though there was no particular fear of her stampeding, as she was, in mountain parlance, "pretty much give out;" and then, with the rope twisted round my arm, for want of a better picket pin, I lay down to sleep, having my saddle for a pillow, and a sandy piece of soil—I always prefer that kind of ground—for a mattress. How gloriously I rested that night! You may talk of your sound sleepers on feather-beds in well-ceiled chambers, you city bred people, who fancy you are enjoying robust health, and slumber like dormice! What do you know of "Nature's sweet restorer?" Why, I would not give one hour of that dreamless repose beneath the open sky, with the star-lit heavens above, and the pure night winds as they come surging over the dew-laden grasses—or, perchance, in lieu of these, a whisper of pattering leaves for a lullaby, and the dim forms of bending foliage, waving to and fro like gigantic plumes, until the whole grows shadowy and ghost-like as it fades with increasing drowsiness, for all your feverish visions, born of indigestion and an impure atmosphere.

The sun was at least an hour high ere his beams had gained sufficient power to recall me to the realities of this waking world, among the first

of which I realized, as affecting myself personally, the facts that I had neither supped nor breakfasted, and, what was worse, stood little chance of doing either until my arrival at Santa Fé. Now, as one idea generally suggests another, this latter reflection brought me very naturally to the question, Where *was* Santa Fé? Was I in the right road or in the wrong? or—which seemed quite as likely—in no road at all? Should I retrace my steps, or continue on? All very proper queries, but somewhat difficult to answer, for the best of reasons—that I was very much in the dark myself. I had pondered these matters without arriving at any better result than a more intense degree of mystification, when, just as if to solve them all, down came a couple of Mexican wood-cutters, with a little drove of "*burros*," alias jackasses, some of which were laden with wood to an extent which left only their heads and tails visible, while others trotted loose, with but a saddle upon their backs.

Having my mule already for a start, I mounted and rode down to the pool, where the new-comers, both bipeds and quadrupeds, were then watering. Upon reaching the place, I first gave my mule a drink, and then advanced to exchange the usual good-morning, determined to obtain what information I wished, and, at the same time, impart as little as I conveniently could to my new acquaintances. But a Mexican is a shrewd talker, and in this particular instance they out-Yankee'd me completely; for in ten minutes time I had learned no more than I had guessed at first—that they were wood-cutters going to Santa Fé with their cargo; while they had discovered that I was an American—a stranger in a strange country—and badly lost to boot. As these people purposed taking a short cut, or what they called a "*camino cerca*"—near road—though I would have defied any but themselves or an Indian to follow it, I concluded to bear them company; the more so as the elder of the two was a curiosity in his way, with a spice of humor in his composition, which exhibited itself in the caustic speeches which this dried up little anatomy jerked out occasionally, generally concluding a remark by the personal application of a pointed stick to the ribs of his donkey, which never failed to call forth an indignant remonstrance from the injured beast. As we journeyed on in great good fellowship, I tried to beguile the tediousness of the way, which was just then leading us through a most uninteresting region, by arguing the question of Roman Catholicism, and its influence upon the inhabitants of New Mexico. Upon this topic I found the old fellow excellently disposed to agree with me; for the money, "which, with the assistance of Saint Joseph, he expected to receive for his cargo, would, *Valga me Dios*, be all expended upon his return in the payment of a certain debt, due for religious services and indulgences which he had obtained from the village priest, who would, most probably," (added my informant, with a terrible punch of his *burro's* back, who resented the blow instantaneously, by kicking out with a vigor which nearly dislodged its rider), "spend it at the '*Monte*' bank, or lose it at the cockfights after mass on Sunday afternoon."

While traveling thus, I could not but fancy that a schoolboy fresh from the wonders of the "Arabian Nights" would have likened my companions to Ali Baba and his son, and myself, perchance, to the Captain of

the Robbers. Even I, with no great exercise of my ideality, almost expected that some rock would appear before which we would stand and cry "Open, Sesame!" But my recollection of "Morgiana" and the "Forty Thieves" vanished most suddenly as "Little Gray" fairly "give out" at last, came heavily down, almost pitching me over her head in so doing. Upon removing the saddle, I discovered that, at the best, I could only hope she could be driven along barebacked until we reached Santa Fé; and as her carrying weight was a thing impossible, I was fain to charter a jackass (which, for a consideration, Ali Baba—for so I shall call him—made over to me for my sole use and benefit), by renting him for the next fifteen miles. So, without more ado, I shifted "Gray's" saddle to the "*burro*," an ill-tempered, obstinate little brute, who looked as if I could have transported him with greater ease than he could have carried me. Having, by a great reduction of the girths, got the saddle upon the creature's back, where it appeared, by comparison, large enough for an elephant, I then attempted to bridle it—a proceeding which called forth, so far as jackasses could exhibit it, an unqualified expression of disapprobation and astonishment from the assembled drove, who brayed in concert; whereupon the animal more particularly interested, as though this flourish of trumpets had been intended as a signal, locked his jaws with a tenacity which defied my utmost efforts to uncloset them. Ali Baba, who had hitherto been a quiet looker-on now dismounted, and explained to me that jackasses were an exception to all rules, being saddled, but not bridled.

"But how," queried I, "am I to guide him?"

"Nothing easier," was the reply. "You have only to use one of these;" here he exhibited a stick of hard wood some two feet in length, and sharply pointed at one end.

As I was still quite in the dark as to the manner of employing it, I took a few lessons in donkey-driving from Ali Baba, who gave me the following rules for my guidance; which I, alas! in my stupidity, reversed in their practical application, thereby getting into difficulties, as the sequel will show.

Firstly. I was to turn the donkey to the right, by placing the stick before his left eye, the right optic being covered when he was required to go in the opposite direction. *Secondly.* To stop the animal, I was to wave the stick before both eyes; while to urge him forward, it was only necessary to punch him vigorously about the head and shoulders with the pointed end of my rod.

Determined to carry out my instructions to the letter, I got under way with the remaining quadrupeds, and Little Gray in front, while Ali Baba and his son brought up the rear of the party. For the first mile or two I got along remarkably well. But then my evil fortune took the ascendant; for, having had a slight misunderstanding with my jackass, who had thought fit to take advantage of my inexperience by doing pretty much as he pleased, I used my pointed stick to such good purpose, that the brute made off with a rapidity which fairly astonished me, and disgusted Ali Baba, who, in the innocence of his heart, imagined that I desired to run away with his property. Having hailed me, under the influence of

this supposition, in no very complimentary terms, which softened into a piteous entreaty as they discovered that I was increasing my speed, both father and son joined in the pursuit of what they appeared to consider a sort of American freebooter absconding with felonious intent. I was in a passion, of course. The idea was too preposterous—a lieutenant of infantry eloping with a jackass. But my mirth soon overcame my rage. It was a scene which would have excited the risibles of a Stoic. Just picture it to yourself. Fancy a young man some six feet high, dressed in buckskin, with a long hair streaming in the wind, and mounted upon a stiff-necked and rebellious "*burro*," who rushed insanely on, carrying his rider, *nolens volens*, into the thickest part of the pine woods fringing an abrupt hillside. Confound those same pines, say I. I have not yet forgotten how sturdily they stretched out their long, unbending arms, as if to compass the annihilation of my devoted brains—a catastrophe which the speed of my "*burro*" rendered not unlikely. But, with all these drawbacks, laugh I must, and laugh I did; for in my rear thundered Ali Baba and the jackasses, with Little Gray in their wake, whose familiar face was stuck knowingly out, with an expression which seemed to say, "Go it, master; this reminds us of our old times in the Indian country."

Verily, it was a steep chase, and over the roughest kind of a country at that—a race in which I should have come off winner or broken my neck, if it had not been rather abruptly terminated by my motive powers getting into a sand-heap, where I came to anchor very ingeniously by planting both feet, which my long legs and "*burro's*" short ones rendered an easy matter, in the sand. Here I was speedily overtaken by my pursuers, whose ardor, now that the chase was ended, seemed greatly cooled. Mutual explanations having satisfied all parties, except the "*burros*," that it was entirely a mistake on their part, and ignorance of the art of jackass-driving on mine, we once more pursued our way; though I deemed it most prudent to keep within hailing distance of Ali Baba, whose experience might prove useful in case of another stampede.

It was not far from noon when, as we emerged from the pine-clad hills, I beheld for the first time our long-desired haven, "La Ciudad de Santa Fé." Impatient to get forward, I persuaded my companions to urge on their "*burros*," until, by the vigorous exercise of their sharp sticks, they had succeeded in punching them into a steady trot, which soon brought us to the outskirts of the town.

Being not over anxious to exhibit myself upon a Mexican jackass in the principal *plaza* of Santa Fé, I halted at the Quarter-master's stables, where I turned over my jackass, with a due consideration, to "Ali Baba," who made his "*a dios*" and departed. My next proceeding was to rid myself of "Little Gray," who was, at my request, duly installed in the Government stables, where both the accommodations and the amount of forage on hand must have astonished her exceedingly. Nor was it without a sigh of regret that I thus parted from the trusty companion of so many weary miles of travel, who had carried me safely from the distant plains of Los Angeles, serving me faithfully amid mountain snows and desert wastes; and—save in one solitary instance, where she left me afoot among the California sand-hills—conducting herself, for a mule,

with undeviating docility. Poor "Little Gray," I wonder upon what rough road you finally laid down to die; for "Uncle Sam" has, to his shame be it spoken, no retreat for broken-down animals, worn out in the service—a "Board of Survey" and a "public sale" being their sole reward.

Being entirely unacquainted with the interior economy of the city I was about entering, I thought proper to consult with one of the Quarter-master's agents, whom I found lounging before the gate, as to the whereabouts of the principal inn; which resulted in my receiving the information that the "United States Hotel" upon the "Plaza" provided "chickin fixins and corn doins"—or, if a "stranger" wanted "*Mex livin', frijoles and tortillas* to boot—in better style than any other establishment in Santa Fé." Thanking him for his advice, and taking the direction indicated, I walked slowly toward the town, holding up my *sarape* with one hand, while I grasped my rifle in the other, cogitating, as I went, as to the probability of the "United States" being willing to receive so ill-dressed a customer as myself. Really it seemed more than doubtful, nor did a glance at my habiliments tend to the relief of my apprehensions. I certainly cut any thing but an insinuating figure. My boots, between bakings in the sun and drenchings in the rain, had changed their conditional black to a positive brown. My leathern breeches, as well as my fringed hunting-shirt, bore undeniable traces of hard usage, to say nothing of sundry rents which had been but indifferently remedied by Señor Juan's attempts at needle-work—in a word, they were greasy, blood-stained, and powder-soiled; and as for my head-gear, why, the simple appellation of a "shocking bad hat" would have been a complimentary epithet if applied to my private and personal *sombrero*. All things considered, my case looked badly. "Well, never mind," was my mental ejaculation; "I'm tired and hungry—that's certain; and if the proprietor of the United States don't appreciate a gentleman in disguise, it's no fault of mine. I'll state the case, argue the point, and enter into all proper explanations. So here goes."

Having come to this valorous determination to face the enemy, I hitched up my leggins, and, with a firm grip of my rifle, walked into the main Plaza, where I halted before the door of the "Hotel," a description of which may not be uninteresting.

As I recollect the "United States Hotel" in the summer of 1848, it was a long, low *adobe* building, with white-washed walls, narrow windows and earthen floors; its landlord and proprietor being a certain Mr. Eben ezer Spindle, a man whose long arms, long legs, huge nose, and cadaverous countenance had made him the wonder of his neighbors, who had seen fit to particularize him in familiar discourse as "*Long Eben*"—as they said, "*for short*"—a diminutive which I shall adopt in alluding to him.

"Long Eben" was a "Deown East" man originally—a fact which no one who had ever listened to his oracular remarks would be disposed to deny. He had migrated to the "Far West" when at the age of some five and twenty years—here he had gained

"By what he called hook and crook, and
What the moralists call overreaching,
A comfortable living;"

er, in less poetic phrase, had ruled a country singing-school, edited a provincial newspaper, and occupied the stamp political, where he made bad speeches for a candidate who was—not elected. How he got to Santa Fé, his most intimate friends had been unable to discover. There was a vague rumor in regard to certain “wild-cat” banking operations, wherein our long friend had been an unsuccessful speculator to an extent which rendered him any thing but a favorite with the stockholders. There were even whispers of an indignant, but somewhat informal meeting of the stockholders aforesaid; and a moonlight ride, which was somehow connected with a rail—I don’t mean an iron one. But all this may have been a scandal. Suffice it to say, that he had “located” in Santa Fé, where he had chartered the “United States,” and “allowed to tarry a spell if it should pay.”

Upon entering the common room, I found “Long Eben” engaged in the concoction of a curious compound beverage, known among the initiated as a “gin cocktail;” which being duly discussed and paid for by the consumer, I beckoned to mine host, and calling him aside, asked—with some trepidation, I must confess, in my blindest tones—if he could accommodate me with board and a room during my stay in Santa Fé. After a little hesitation, and not more than fifty inquiries as to my birth, parentage, business, previous history, and future intentions, he “allowed they didn’t calkerlate on havin’ boarders to stop all night, but if I had a blanket he guessed they could manage to fix some kind of a shake down.” So far, then, the thing was satisfactorily arranged; but now came the most important request of all, which, as the dinner-hour was at hand, I felt myself called upon to propound instantler. It was an awkward business, but with a preparatory hem to summon up my courage and decide upon the best way of putting it, I blundered out the following query:

Would it be considered decorous, or would I even be permitted to appear among the guests at the “*table d’hôte*” in my present attire; or, in other words, was a greasy buckskin hunting-shirt, with continuations to match, the style of dinner costume then in vogue in Santa Fé? and could my host inform me of the whereabouts (I had just one “*réal*” and two “*médios*”—total, five-and-twenty cents, federal currency—in my pocket at the time) of the United States Paymaster?—an all-important personage to a subaltern out of funds. It was an anxious moment for me as I waited for his answer; but my mind was speedily relieved by “Long Eben’s” ready rejoinder: “As fur what yeõu have got on, I calkerlate yeõu things is as good as mine, and ef they warn’t, I reckon yeõu could go to table in—” (here he referred to the nether extremity of a certain under-garment, which shall be nameless)—“without any body’s kearing ef yeõu did; and as to the Paymaster, why, he lives jest reõund the corner of the Plaza, and I’ll send a young Greaser with yeõu, after dinner, to show yeõu the way.”

Here all further conversation was cut short by a furious solo upon a bell, which, in the hands of the “young Greaser” alluded to, announced to the world in general, and the patrons of the “United States” in particular, that “corn doins and chicken fixins were going, dog-cheap, at only fifty sents per head;” and I may remark that, had its tinkling been a special

and direct call from the "Evil One" himself—had an earthquake cap-sized the "United States" and all therein—or had an elephant (always supposing he could have got under the door) walked in when least expected, I verily believe that each and all of these phenomena would have created less excitement than did the agitation of that brass dinner-bell. Through the front door at the back entrance, from rooms whose existence I had not even suspected, the famished bipeds came rushing in—the long and the short, the young and the old, all differing in their various external, but all in pursuit of the same laudable desire to fill an "aching void" within. Finding that "self-preservation" was the order of the day, I pushed on with the throng, and secured a seat at a long and not very clean pine-table, whose wooden benches, earthenware plates, and ill-made cutlery might, to a less experienced man, have looked any thing but inviting. But I was too fully impressed with the consciousness of long fasting to be over-mindful of exteriors, and for the first ten minutes devoted my attention to the edibles before me with a zeal which must have persuaded "Long Eben," if he were a looker-on, that I should prove a most unprofitable lodger. Having satisfied my hunger, I yielded to the dictates of an awakened curiosity, and entered upon a series of mental notetakings in relation to the dress, conversation, and manners of my new messmates. It was, moreover, a favorable moment for my observations. The first heat of the onslaught was past. The clatter of knives, the rattle of plates, and the shouts of "*muchácho*" and "*hémbre*," with which they demanded the services of the Mexican waiters, had given place to a comparative calm. The fat German opposite had paused in his feeding, and the nervous little Frenchman on my right no longer cursed the cookery. So far, however, as the jargon of tongues was concerned, the scene was a very Babel—French, English, German and Spanish being all volubly employed to render the confusion more complete. We were certainly a mingling; and for costume, I felt almost at ease in regard to mine own as I criticised the dress of the people about me. There were men in jackets, and men in their shirt-sleeves—here a black coat, which would have been a credit to its wearer even on the right side proper (going down) of fashionable Broadway—and there a "hickory shirt," which had gathered the dust of five days' travel. Nor was our choice in occupation or position in life a limited one. There were old Santa Fé traders, who counted their gains by thousands, and whose signatures were good in St. Louis to almost any amount; there were rough frontiersmen, who boasted no "possibles" beyond the good rifle made by "Jake Hawkins," which always "shot centre;" there were—but

"I'll see no more!

For fear, like Baquo's kings, they reach a score."

"Heōw are yeōu, stranger?" was my first salutation as I reentered the bar-room, labeled "saloon," of mine inn, and on turning round to see who and what manner of man he might be who took so tender an interest in my personal welfare, I beheld a tall Missourian, who, with the assistance of a chair and three-legged stool, with the slight adjuncts of a small carpet-bag and a large pine-table, was making himself as comfortable as

the enormous length of his legs would permit. "Heōw are yeōu, stranger?" he repeated, as I continued to stare at him, still mentally wondering who this quaint specimen of humanity, with his wonderful legs, homespun breeches, and cowhide boots, could be. Having satisfied my curiosity, I informed him that I was in my usual health; upon receiving which gratifying intelligence he arose, and, after stretching himself until I thought of asking him to suspend so unnecessary an operation, finally remarked that "he allowed I had come eōut thar to see the elephant," at the same time giving me an invitation to "take a turn round town." Before starting, however, he sorely tested my friendship by inviting me to join him in a "horn of Monongahele," as he was pleased to term some of the most execrable "corn whisky" which it ever has been my misfortune to taste. But I had sojourned in the Far West too long not to know that a refusal to drink would be considered any thing but courteous to my new acquaintance, or, as he himself would most probably have expressed it, I should be open to the charge of having made "a large hole in manners" by so doing. Having, therefore, duly complied with the stern requirements of frontier etiquette, we sallied out together, my long companion taking strides which would have done honor to "Jack the Giant Killer's seven-league boots," thereby keeping me at once in a dog-trot and a profuse perspiration.

Leaving the main Plaza, we traversed a complication of remarkably dirty streets until we halted before a low *adōbe* house, built somewhat in the form of the letter L, with a flat roof, and walls carefully whitewashed upon the outside — perchance a satirical commentary upon the purposes to which it was devoted. But my guide was little given to moralizing, or did not then care to indulge in it; for, after beckoning with his hand, and muttering an explanation to the effect that "they kept an elephant in this establishment, and the *tallest* kind of an animal at that," he made for the door, through which he effected an entrance by stooping not more than six inches. Following his lead, and keeping close to my conductor, I stepped into a room which, besides a couple of billiard-tables and a very mixed *assemblage* of the "*genus homo*," contained a sufficiency of cut-glass decanters, not to mention a villainous smell of bad brandy, to inform me that it was the "bar;" but, as my companion had already paid his respects to the "Monongahele," he did not tarry, but glided through the throng, while I followed closely in his wake. A moment more, and we had entered another apartment, where the sounds and odors were, if possible, worse than those which we had encountered in the vestibule without. I now discovered that I had been introduced into the principal gambling saloon of the city. It was, as the exterior of the building had indicated, a long, low room, with narrow windows upon one side, which lighted it but dimly, and an earthen floor, which seemed perfectly impregnated with the expectorations of its tobacco-chewing frequenters. On either side of this apartment were ranged three tables for the convenience of the "banks" and their customers. These tables were strongly built of some hard wood, with a parapet upon the three sides most distant from the wall; partly, I presume, to prevent the money from rolling upon the ground, and partly, it may be, to put a stop to any undesirable scru-

tiny into the manipulations of the banker. Between the wall and the tables were placed chairs for the convenience of the dealer, or dealers—for these gentry usually hunt in couples; while upon the board was displayed not only the *lure* in the shape of Mexican dollars and Spanish doubloons, or "ounces," as they are called in that region, but a *preventive* to interference (or, as is sometimes the case, just complaints of unfair dealings) in the shape of Bowie knives, "Derringers," and "six shooters," which latter weapons lay prepared for instant use, being loaded and capped so as to be ready to the hand.

The amount of capital invested in these operations was certainly much larger than I should have supposed, several thousands of dollars being not unfrequently exhibited, with an assurance that even larger sums would be forthcoming if the player should desire it. The upper end of this "Pandemonium" was occupied by a "roulette-table," the proprietors of which kept crying out at intervals, "Come up, gentlemen! Here is the game for your money! Any time while the ball rolls! *Eagle* has chance," and so on.

Finding that my new companion had by this time forgotten me, and almost his own existence, in the all-absorbing interests of the gambling-table, where, if I might judge from his occasional exclamations of "*Wæneōw!*" and "*Wonder if that's fār!*" he seemed to be tempting Fortune with but indifferent success. I made the acquaintance of a young volunteer officer, who was lounging about the room, and as both were but "lookers on in Venice," we joined company and took notes, which at the time I had but little thought of printing.

It is a wise and truthful saying that "Death levels all things; and there be a parallel to that equality, which is only found in its perfection when we lie down "with kings and counselors of the earth," it is the born of the morally pestiferous miasmas of the gambling-table, where the one great passion absorbs all minor considerations—dignity, position, principle, nay, even honor itself, being forgotten for the chances of a card or the hazard of a die. Nor was it less so here, for amid the excitement I noticed more than one woman—yes, even child—who was risking money upon the fluctuations of that truly Mexican mode of gambling, "*el monté*."

Among the females present, I remarked one, whose face—though she was by no means advanced in life—bore most unmistakably the impress of her fearful calling, being scarred and seamed, and rendered unwomanly by those painful lines which unbridled passions and midnight watching never fail to stamp upon the countenance of their votary. I afterward learned that this person was the most notorious, if not the most accomplished gambler in New Mexico, where she had obtained by her unprecedented successes a famous, or, rather, infamous reputation. Her history is a peculiar one, I will give it in the language of Greveland who thus alludes to her in that excellent work, "The Commerce of the Prairies":

"The following will not only serve to show the light in which gambling is held by all classes of society, but to illustrate the purifying effects of wealth upon character. Some twelve or fifteen years ago, there lived,

rather, roamed in Taos a certain female of very loose habits, known as *La Tules*. Finding it difficult to obtain the means of subsistence in that district, she finally extended her wanderings to the capital. She there became a constant attendant upon one of those pandemoniums where the favorite game of *monté* was dealt *pro bono publico*. Fortune at first did not seem inclined to smile upon her efforts, and for some years she spent her days in lowliness and misery. At last her luck turned, as gamblers would say, and on one occasion she left the bank with a spoil of several hundred dollars. This enabled her to open a bank of her own, and, being favored with a continuous run of good fortune, she gradually rose higher and higher in the scale of affluence, until she found herself in possession of a very handsome fortune. In 1843, she sent to the United States some ten thousand dollars to be invested in goods. She still continues her favorite 'amusement,' being now considered the most expert *monté* dealer in Santa Fé. She is openly received in the first circles of society. I doubt, in truth, whether there is to be found in the city a lady of more fashionable reputation than this same Tules, now known as *Señora Doña Gertrudes Barceló*."

The foregoing particulars were entirely confirmed by statements made to me during my stay in Santa Fé. This woman has since gone to render her final account, and was, I am told, interred with all that pomp and ceremony with which ill-gotten wealth delights to gild its obsequies. Alms were given to the poor, and masses performed for the repose of a soul which could claim but *one* mediator between itself and its Creator. When I saw her, she was richly but tastelessly dressed — her fingers being literally covered with rings, while her neck was adorned with three heavy chains of gold, to the longest of which was attached a massive crucifix of the same precious metal.

Another "noticeable" amid this motley assemblage, who attracted no small share of my attention, was a Mexican priest, who, in the clerical garb of his order, with cross and rosary most conspicuously displayed, was seated at one of the tables near me, where he seemed completely engrossed by the chances of his game, the fluctuations of which he was marking by the utterance of oaths as shocking and blasphemous as ever issued from human lips. Unlike my jolly friar, Father Ignatio, (whom may Bacchus defend,) he sinned, not from carelessness, or out of a genial exuberance of animal spirits, but from the evil workings of a sin-blackened soul within. Yet this man was a minister at the altar, and a sworn protector of Christ's flock; who held, according to his creed, the power to absolve and to baptise, to shrive the dying and intercede for the dead; who would go from the curses of a "hell" to the house of the living God, and there stand in his sacerdotal robes and say to his people, "Go in peace, thy sins are forgiven thee!"

As I was still following out the train of thought to which these matters had given rise, my meditations were interrupted by the sudden re-appearance of my Missourian guide, who had lingered about Madame *Tules'* bank until he had staked and lost his last dollar. I shall not soon forget his woe-begone expression as he planted himself directly in front of me, elevating his tall form to its fullest altitude, while his right

arm was gesticulating in the air. After looking full in my face for a moment, he addressed me in the following strain :

"I brought yeñ hiär, stranger, to see the elephant; but I kinder expect I've seen the critter wuss than yeñ hev. If yeñ'll take a fool's advice, yeñ'll leave hiär—sure as shooting, and forgit the trail yeñ cum by. Darn the keärds!" he added, in a sudden burst of indignation; "I allers was a fool, and cuss this Greaser swindle they call *Monté*! I *only* wish the man that invented it had had his head tuck off with a cross-cut saw just afore he thought of it—*wall, I do, hoss!*" Here he paused. I listened for something more, but he had "said his say," and, walking moodily through the crowd, which he elbowed with but scanty ceremony, he finally disappeared through the open doorway. The next time I saw him, he was seated upon the driver's box of a heavy mule wagon, *en route* for Chihuahua, where, as he informed me, "he allowed to make a raise," being just then, "thanks to that cussed *Monté* woman, flat broke."

Upon regaining the, by comparison, purer air of the uncleansed alley-way without, I could scarcely avoid moralizing upon the scenes I had so recently witnessed. Here were men, women, and children—the strong man, the mother, and the lisping child—all engaged in that most debasing of vices, gambling, an entire devotion to which is the besetting sin of the whole Mexican people. But yet these transgressors were not without an excuse. What better could you have expected from an ignorant, priest-ridden peasantry, when those whom they are taught to reverence and respect, and who should have been their prompter to better things, not only allow, but openly practice this and all other iniquities? If there be a curse (as who shall doubt?) pronounced against those who are instrumental in whelming a land in moral darkness, what must be the fate of those "blind leaders of the blind," the Roman Catholic priest hood of New Mexico?

On my way back to the "Hotel," I paid my respects to the paymaster, or, rather, to his clerk, from whom I received certain moneys due me from the United States for services rendered. Departing thence, I walked into a "store" upon the Plaza, where I purchased divers articles of clothing, with which, and a fit-out for my extremities in the shape of hat and boots, I so metamorphosed myself that a little Mexican, who had seen both my exit and entrance, grinned admiringly, which, coupled with the compliment of non-recognition paid me by "Long Eben" upon my return, was, all things considered, extremely flattering.

As it wanted still at least an hour to supper-time, that meal being served at the very primitive period of sunset, I once more sallied forth, leaving "Long Eben" lolling against his door, where he was busily engaged in completing what Dickens would have called "a magic circle of tobacco juice," to wander through the town.

Of *La Ciudad de Santa Fe*, as it existed in the summer of 1848, I can say little that is favorable; but as I am unwilling to pass judgment upon so limited an acquaintance, I prefer adopting a description of that city which I find recorded in the narrative of Gregg, to advancing my own hasty impressions. The more so, as I am satisfied that this descrip-



PLATE 72

tion is not only the most correct, but the briefest which I have hitherto seen. He says, writing in 1844 :

" Santa Fé, the capital of New Mexico, is the only town of any importance in the province. We sometimes find it written *Santa Fé de San Francisco* (Holy Faith of Saint Francis,) the latter being the patron or tutelary saint. Like most of the towns in this section of the country, it occupies the site of an ancient *pueblo*, or Indian village, whose race has been extinct for a great many years. Its situation is twelve or fifteen miles east of the Rio del Norte, at the western base of a snow-clad mountain, upon a beautiful stream of small mill-power size, which ripples down in icy cascades, and joins the river some twenty miles to the southwestward. The population of the city itself but little exceeds 3,000 ; yet, including several surrounding villages, which are embraced in its corporate jurisdiction, it amounts to nearly 6,000 souls. The latitude of Santa Fé, as determined by various observations, is $35^{\circ} 41'$ (though it is placed on most maps nearly a degree further north,) and the longitude about 106° west from Greenwich. Its elevation above the ocean is nearly 7,000 feet ; that of the Valley of Taos is, no doubt, over a mile and a half. The highest peak of the mountain, (which is covered with perennial snow,) some ten miles to the northeast of the capital, is reckoned about 5,000 feet above the town. Those from Taos northward rise to a much greater elevation. The town is very irregularly laid out, and most of the streets are little better than common highways, traversing scattered settlements, which are interspersed with corn-fields nearly sufficient to supply the inhabitants with grain. The only attempt at anything like architectural compactness and precision consists in four tiers of buildings, whose fronts are shaded with a fringe of *portales* or *corredores* of the rudest possible description. They stand around the public square, and comprise the *Palacio*, or Governor's house, the custom house, the barracks (with which is connected the fearful *Calabozo*,) the *Casa Consistorial* of the *Alcaldes*, the *Capilla de los Soldados*, or Military Chapel, besides several private residences, as well as most of the shops of the American traders."

During my sojourn in Santa Fé, I was struck with the very peculiar taste which the young ladies of that city display in their fondness for cosmetics. Indeed, when I first entered the town, it appeared to me that every woman under the age of five-and-thirty was afflicted with an inflammation of the face, which I had mentally concluded might be "catching;" in this belief I continued until my fears were relieved by the kindness of a friend, who elucidated the mystery by letting me into the secret. It seems that the "*señoritas*," and, for that matter, "*señoras*" too, occasionally are in the habit of disfiguring themselves, by covering one or both cheeks with some kind of colored paste, which gives even to their village belles any thing but an attractive appearance. This painting might, to the casual observer, seem intended as an ornament, got up in imitation of their Indian neighbors, or, it may be, of our own fashionable fair ones. But it is not so; for I am assured, by those whose opportunities of judging are undeniable, that it is put on as a preservative to the complexion. So that a New Mexican beauty is not only willing to

forego the luxury of the bath, but even to appear hideous for a month at a time, for the sake of exhibiting a clean face and ruddy cheeks while gracing some grand *fandango* or *fiesta*.

There is yet another custom among these people which is well worth knowing, indeed, as applied to a "distinguished few." I would not altogether dislike its adoption into our own more civilized community. I is this: the New Mexicans greet a friend, not by compressing and then agitating his hand, but by putting an arm about his neck and literally embracing him—a nice, old-fashioned, patriarchal way. This custom applies to all ages and both sexes; and really I agree with "Los Gringos" Wise, who informs us that "it is a real luxury to meet a pretty *señorita* after a short absence." But, like every thing else, the thing has its draw-backs, and serious ones, too. For instance, though it may be a very delightful thing to embrace, or be embraced by, *Gabriella* or *Martina*, or any other dark-eyed damsel of "sweet sixteen," it is anything but desirable to be obliged to extend the same courtesy to their brother *Juan*, or their "*Padre*" *Don Joséf*, particularly if Messrs. *Juan* and *Joséf* have dined upon a "hotch-potch" seasoned with garlic, which is but too often the case. As I said before, the custom is a good one, but in its practical application should be limited to one's young lady friends.

In repassing the *Plaza*, my attention was attracted by a group of Indians, whose dress and general appearance proved them to belong to some tribe which I had not hitherto seen. Upon making inquiry, I learned that they were Navajos, then detained as the somewhat unwilling pledges for the restoration of some captives, and other property, stolen by their brethren from the good people of New Mexico and its vicinity.

It was at an early hour that my landlord exhibited the "shake-down" which had been prepared for me. I did not make the suggestion, but, if the truth be told, my first impression upon seeing it was, that a "shake-up" would do it no manner of harm. But a man who has lived out of doors for a month or two will scarcely grumble at a bed of any kind; so I said my "good-night" and tumbled in, but not to sleep; for either I was unused to being thus "cabined and confined," or it may be that the *chinchés* (in plain English—bed-bugs), which swarm—as every New Mexican traveler is but too well aware—in this favored land, were too numerous for comfort. At all events, for some cause,

"I turned, and turned, and turned again,
With an anxious brain,
And thoughts in a train,
Which did not run upon sleepers."

Right glad was I to hail the first red gleam which came stealing in through the barred windows to announce the coming of the day, less pleased was I when, upon attempting to call a servant, I found that I had caught, thanks to sleeping in a draft, "a horrid cold," which would not permit of my speaking above a whisper. Pains in my limbs, and an aching head, were soon added to my catalogue of symptoms, and prudence confined me to the house for two succeeding days, when Kit made his appearance—a very gleam of sunshine, if sunshine ever came in the garb

of a travel-soiled mountaineer — to cheer my solitude, and inform me of his future plans, which were as follows :

He purposed obtaining fresher animals from the Quarter-master, reducing his party, and, by taking a short cut, go directly to Fort Leavenworth — all of which was sad news to me ; for I had already determined that, in case of his immediate departure, I should be obliged to prolong my stay in Santa Fé until I should be sufficiently recruited to continue my journey by a longer and less expeditious route. But, as better might not be, we parted — he to the free air and exciting travel of the Great Prairies, and I to mope within my solitary room, with the dusty Plaza and its low adobe walls to bound my prospect, and no better amusement than the study of character as I found it exhibited in the rougher specimens of humanity who frequented the inn.

It was a joyful thing to me when that unwelcome visitor, the "influenza," once more permitted me to go abroad — a liberty which I was not slow to take advantage of, by visiting one of the principal Santa Fé traders, whose train was about returning to the frontiers of Missouri. This gentleman received me kindly, and on learning that I desired to accompany his party, offered me every facility for so doing.

As the train which I proposed traveling with was already *en route*, having advanced as far as the Mora, the usual starting point of the returning caravans, where it was only awaiting the arrival of wagons which were to leave the town early next day, I felt that I had no time to lose in preparing for my new start. So, after divers consultations with those versed in this, to me, novel kind of travel, I provided myself with a good stout mule, a buffalo horse, which I styled "Bucephalus" forthwith, and provisions for the trip in the shape of flour, bacon, hard bread, sugar, coffee, and so forth, each and all of which I found useful in their way.

It was not far from eight o'clock in the morning of a sultry July day that I mounted my "Bucephalus," who had been airing himself for the half hour previous in front of the hotel. As I had but two persons to say good-by to, my leave-taking was of the shortest. But in the case of Señor Juan, my old servant, whom I saw upon that sunshiny morning for the last time, I must confess that I experienced a greater feeling of regret than I had anticipated. He had, it is true, been with me but two calendar months, yet in that short period he had forded rivers, and traversed desert sands by my side ; we had shivered in the same blast, burned beneath the same sun, and warmed ourselves by the same fire, until his image, uncouth and repulsive as it was, formed the back-ground of a thousand scenes not easily forgotten, and — hang the fellow ! — made my voice a little husky as I gave him my hand for parting.

"Long Eben" was the last to say farewell, which he did in his own peculiar style, the "Deown East" drawl being still predominant — "Good-by, Mister ; and ef yeõu meet eny body on the road that's beõund for Santa Fé yeõu may say that the United States Hotel is a dreadful fine place to stop at, won't you ?"

It was with no feeling of regret that I lost sight of those piles of sun-dried brick which made up the larger portion of *La Ciudad de Santa*

At. I did not like the place, I could scarcely have said why. It may have bettered itself since, but it did not suit me then. It is possible that the life of wild excitement which I had been leading during my Rocky Mountain journeyings had unfitted me, in a measure, for its everyday realities. Be this as it may, I had had the blues, and, what is almost as bad, the influenza, in it; and once more upon my horse's back, with my rifle in my hand, and the fresh breezes from the broad prairies upon my cheek, I felt that I would not have reëntered it for any consideration short of a positive order from my commanding officer.

Our travel that day was marked by no particular incident until our arrival at the Pecos, where we encamped for the night. During our detention at this point I examined some ruins in that vicinity, which I found highly interesting, not only from their antiquity, but from the historical events with which they are connected. As I am already indebted to Colonel Emory's report for original sketches of the ancient Aztec and Catholic church ruins, and as I find the substance of my own observations embodied in his journal, I shall take the liberty of quoting such facts as might prove explanatory or generally interesting. Under date of August 17th, 1846, he says:

"Pecos, once a fortified town, is built on a promontory or rock, somewhat in the shape of a foot. Here burned, until within seven years, the eternal fires of Montezuma; and the remains of the architecture exhibit, in a prominent manner, the engraftment of the Catholic Church upon the ancient religion of the country. At one end of the short spur forming the terminus of the promontory are the remains of the *estufa* with all its parts distinct; at the other are the remains of the Catholic church, both showing the distinctive marks and emblems of the two religions. The fires from the *estufa* burned, and sent their incense through the same altars from which was preached the doctrines of Christ. Two religions, so utterly different in theory, were here, as in all Mexico, blended in harmonious practice until about a century since, when the town was sacked by a band of Indians. Amidst the havoc of plunder of the city, the faithful Indian managed to keep his fire burning in the *estufa*; and it was continued till, a few years since, the tribe became almost extinct. Their devotions rapidly diminished their numbers, until they became so few as to be unable to keep their immense *estufa* (forty feet in diameter) replenished, when they abandoned the place and joined a tribe of the original race over the mountains, about sixty miles to the southward. There, it is said, to this day they keep up their fire, which has never yet been extinguished. The labor, watchfulness, and exposure to heat consequent upon the practice of the faith, is fast reducing the remnant of the Montezuma race, and a few years will, in all probability, see the last of this interesting people.

The crumbling remains of the modern church, with its crosses, its cells, its dark, mysterious corners and niches, differ but little from those of the present day in New Mexico. The architecture of the Indian portion of the ruins present peculiarities worthy of notice. Both are constructed of the same materials—the walls of sun-dried brick, and the

rafters of well-hewn timber, which could never have been shaped by the miserable little axes now employed by the Mexicans, which resemble in shape and size the wedges used by our farmers for splitting rails. The cornices and drops of the architrave in the modern church are elaborately carved with a knife."

How graphic a picture does this description present of the sincere and disinterested devotion of these zealous but deluded worshippers—a delineation which, while it furnishes rich material for the exercise of a romantic imagination, affords much which should give rise to more serious reflections. On the one hand, it excites our ideality by producing to the mind's eye a representation of the scene. We behold the huge fires of the *estufa*; we hear them roar and crackle as the silent watchers heap fresh fuel upon the blazing pile; we see the worn and wasted worshippers, whose hollow cheeks and attendant limbs bear the impress of their painful and long-continued vigils. We can follow in fancy, its devoted attendants, as year by year, and hour by hour, they fulfil their appointed tasks. We see them amid the summer's heat and in the winter's cold, shivering in the blast, or fainting beneath the sultry sun, as they go forth to procure the material with which to feed the flames. We can go with them during the long and dreary nights, when the exhausted Indian retires for a moment from the scene of his labors to cool his fevered brow and gaze upon those orbs, of whose mighty Creator he is so profoundly ignorant. We can be with him as he returns to renovate the dying flame, working patiently for naught, while the dark hours come and go, though the night-winds blow, and the pale moon shines steadily without; and even while the "gray dawn" is lighting up the misty hills, while sweet birds are warbling their martin songs, and all nature is rejoicing in the advent of the new-born day. Yet still he keeps his watch, forgetful of the world, with its myriad beauties, the creation of that master hand whose works are so full of strength, and dignity, and glorious perfection.

And this is Fancy's view; but there are deeper thoughts connected with the theme. Is there, in the self-sacrificing adoration of these benighted children of Montezuma, no reproof to the weak and vacillating spirit? No rebuke to the lukewarm ardor of those who profess, in this our enlightened age, to worship *one* God in spirit and in truth? Truly this is a subject on which much could be written.

After our departure from the Pecos, we met with little in the way of incident or adventure which would be interesting if recorded here, save that some two days prior to our arrival at the *Mora* our teamsters celebrated the Fourth of July, and their own independence, by drinking an unlimited quantity of corn whisky, which ended in their getting most patriotically drunk; and calling into requisition the services of "Nigger Bill," a little dried-up blackamoor, who on this occasion danced "Juba," "by particular request," to the sound of a violin played by an eccentric genius from Kentucky, whose musical talents had already obtained for him the *soubriquet* of "Kentuck the fiddler."

I derived, too, some satisfaction, while *en route*, from a visit to a Mexican *rancho*, where, as I attempted to carry on a conversation in English, they very naturally imagined that I understood no Spanish—a

belief which led them into the double error of supposing that I was just from "the States," and might therefore be desirous of purchasing one of those hairless, rat-tailed, New Mexican curs, which the Americans are in the habit of designating as "cast-iron dogs"—an animal much valued in those regions as a sort of four-legged warming-pan, to which purpose these unlucky animals are frequently applied. The not very flattering conversation which ensued among its owners (who were anxious to cheat me, if it were possible), as well as their astonishment upon discovering that I had fully appreciated their remarks, afforded me no little amusement, which I finally enhanced by delivering my opinion of themselves and their "*costumbres*."

I was not sorry when we at length reached the *Mora*, the literal meaning of which is "mulberry;" but, though that fruit is found in its vicinity, I am inclined to believe, with Gregg, that it owes its appellation to some early settler of that name, from the fact that the New Mexicans always call it *Bio de lo de Mora*. Here we found the train, or rather trains—for they were three in number, though now consolidated, for the greater security which an increase of numbers would afford—only waiting for our arrival to make their final preparations and take up their line of march.

I must not forget to remark, that, during our short detention here, I noticed some very peculiar effects of *mirage*, or, as they are termed in prairie parlance, "false ponds;" as also the appearance of one of those whirlwinds, which are common not only to the "great prairies," but to the sandy wastes of the "California Basin." So far as the whirlwind is concerned, the explanation is a simple one, the moving column being nothing more than a collection of the particles of dried grasses or dust, which have been taken up and carried forward by the eddying currents of air as I have seen water-spouts upon that less substantial plain, the ocean. The *mirage* is, however, not so easily accounted for. It has ever attracted attention, and excited much speculation, as well as no small difference of opinion, among the *voyageurs* upon the great prairies. For myself, I am inclined to concur in the opinion of a traveler, who says: "The philosophy of these 'false ponds' seem generally not well understood. They have usually been attributed to *refraction*, by which a section of the bordering sky would appear below the horizon. But there can be no doubt that they are the effect of *reflection* upon a gas emanating, perhaps, from the sun-scorched earth and vegetable matter. Or it may be that a surcharge of carbonic acid, precipitated upon the flats and sinks of these plains by the action of the sun, produces the effect. At least it appears of sufficient density, when viewed very obliquely, to reflect the objects beyond; and thus the opposite sky, being reflected in the *pond of gas*, gives the appearance of water. As a proof that it is the effect of reflection, I have often observed the distant trees and hilly protuberances which project above the horizon beyond distinctly inverted in the pond; whereas, were it the result of refraction, these would appear erect, only cast below the surface. Indeed, many are the singular atmospheric phenomena observable upon the plains, which would afford a field of interesting research for the curious natural philosopher."

PRAIRIE HUNTING.

The bison is peculiar to America, and probably before the arrival of Europeans roamed over most of the continent, as the early voyagers frequently mention "wild bulls," and there is no other member of the ox tribe known to be native.

It has always been an animal of great value to the Indians, furnishing them with food, clothes, and dwellings; in fact, the Indians of the plains are entirely dependent on the buffalo, and when he fails in his annual migrations, they are reduced to starvation.

It is believed that all attempts to mingle permanently the blood of these desert-born cattle, with that of the domestic breed have proved unsuccessful. Like the offspring of the red and white races of man, they cannot be depended upon as civilized or tamed, but are apt, at the first chance, to take to the woods again.

Although a large and apparently formidable animal, the bison seems to be inferior in courage and ferocity to the wild cattle of Europe and Asia. It flies at the sight of man, and although when brought to bay will make a furious charge at the hunter, with a good horse this is easily evaded, and so mounted, a man can pick out the fattest of the herd with very little danger. Indeed, a scamper among the buffalo is now the common finish to a sporting tour in America, by the young gentlemen of England and their Boston and New York imitators. Salmon fishing in Nova Scotia, grouse shooting in Illinois, and buffalo hunting on the plains—all requiring enough pluck to keep the Cocknies out.

The range of the buffalo is still very extensive, from the Rocky Mountains on the West to within two hundred miles of the Mississippi on the East; and from Texas on the South to Lake Winnipeg on the North.

The elk, or wapiti, is to be found, like the buffalo, on the great plains west of the Mississippi, which he seems to prefer to the timbered country.

There is great need of a standard work on American Mammalia. We have large and satisfactory books on our Ornithology; something has been done, and more is doing, on Ichthyology, while the only work we have on the quadrupeds of America is that of Dr. Godman, which is much behind the present state of science.

The animal under consideration has been frequently confounded with the large deer of the timbered country, the cariboo, and this last again with the reindeer. The distinctions between these species have been ably pointed out by Mr. Herbert in his work on American Field Sports. The elk is domesticated without much difficulty, and has, we believe, frequently been trained to harness, for which its strength and speed are well adapted; while its clean and graceful limbs and splendid antlers would make a pair of elks, going a three-minute gait along the avenue, a real sporting team. To the parks of our country gentlemen the elk would form an appropriate ornament, while their flesh affords a delicious venison. The hunting of the elk and cariboo affords the finest sport

which is to be had on this continent. The watchfulness and speed of the animals, with their courage and ferocity when brought to bay, render it anything but a holiday recreation, but one demanding great knowledge of woodcraft and skill with weapons, as well as courage and endurance.

The deer—we do not propose to inflict upon the reader any description of this well-known animal, found in all parts of the Union, from Cape Cod to the Columbia river, but merely to describe some ways of hunting him.

First: driving with hounds. It is usual in this mode of hunting deer, to station the sportsmen at certain stands or passways, where the deer are expected to pass on being roused by the hounds. Armed with a double-barrel, heavily loaded with buck shot, the patient hunter must remain for hours or days immovable and silent, waiting for his game to be brought to him. There may be one chance in six that he may see the deer; one in ten that the deer will pass his stand, and one in fifteen that, if a beginner, he will have presence of mind to fire; and one in twenty that, if all the other chances occur, he will kill his game. This driving is the favorite method at the South, where the indolent gentry, wishing to kill time and procure an appetite without much exertion, keep negro hunters and drivers to do the work, while they sit all day on a log smoking.

Second: coursing with Greyhounds. This is brilliant sport, superior to any hunting in America, except, perhaps, the regular Carolina fox hunting in the pine woods. You go out upon the prairie, well mounted, with your dogs in the leash. They are a cross between the greyhound and some heavier and fiercer race, and, if *right*, will run into and pull down a buck single handed. It is a fine morning in December, and the surface of the prairie, blackened with the autumnal fires, is covered with patches of white frost. The air is clear and bracing, and as we ride out of town and emerge upon the open prairie, our horses, anticipating the well-known sport, prance gaily about. Our company consists of about thirty horsemen; some armed with pistols, others with rifles or double guns. We have five large half-bred greyhounds, tawny and brindled, with deep chests and strong limbs; three couple of fox-hounds, who ever and anon utter their impatient bay; two or three terriers and a crowd of curs. We push out into the prairie, steering south, towards Blue Island, where we expect to find a herd of deer. (This is supposed to be in 1840.) On arriving at the timber, five or six hunters, with the dogs, take the lead, and the rest of the field follows as it best may through the timber. We keep along through the grove for a couple of miles, when the word is given that the deer are ahead, and we are desired to spread ourselves so as to drive them out of the grove on to the large prairie south, where the dogs can run to advantage. Here let us remark, that it is dangerous to let greyhounds run in the timber, as they are very apt to kill themselves by running against trees. Slowly and carefully we proceed, with the fox-hounds in advance, their deep voices showing the route we are to pursue. At length, we come out of the grove, and spy the deer, ten or twelve in number, bounding away over the prairie about a mile off; not much alarmed, as yet, and occasionally stopping to look behind at their pursuers.

"Now, men," says our leader, "spread yourselves, and go!" The greyhounds are slipped, and start at full speed, followed by the crowd of shouting riders and yelling curs. The deer take the alarm at once, and, after making two or three very lofty bounds, as if to try their limbs, they set off at a rate which would seem likely to carry them out of sight very soon. We go at our best pace for about a mile, when the field begins to grow select. First, the big gray, with the butcher on him, gives out, and a canter is all that can be got out of him. Next the bay colt and the black mare, hired from a livery stable, and ridden by two spruce looking young clerks, are brought to a trot, blowing heavily. Now those three Germans, rigged out "*en grand chasseur*," with guns strapped to their backs, game bags large enough to hold a well grown fawn, and hunting horns round their necks, have pulled up their tired nags, which have hardly got a puff in either of them, and proceed with great deliberation to light their pipes.

"Halloo! Mike! is your mare done?"

"Sure and I have no call to them craturs wid the horns, and why would I be breaking the ould mare's heart this way?" said the Irish drayman, who, being of a sporting turn, and owning a nice gray mare which was quite fair for a quarter race, had engaged her in a business for which she was not quite able.

Five or six more begin to show "bellows to mend," and gradually to drop astern, as we get along into the prairie, and it is evident that the deer are making for the next grove, some five or six miles further. We had run them about three miles at a killing pace, when the stake or things was as follows: About a quarter of a mile behind the deer are the greyhounds, running on a line about ten feet apart. A quarter of a mile behind them are the fox-hounds, close together, and tails well up, with a breast-high scent and a full cry. Just behind them comes Major D., on a thorough-bred chestnut horse, who goes as if he could keep that stride to the Mississippi. Then, side by side, came Dr. C., on a powerful bay Morgan, who looked as if the pace was a little too good for him, and the writer, on a mare of the Major's raising, called Oreeeping Kate; she was by his sorrel horse, which is directly decended from Henry and Eclipse. No wonder, then, that she can run a little, though she is over ten years old. Straggling behind these come half a dozen of the best mounted of the field—the rest, with the cur dogs, are nowhere.

"Will they get to the grove, Major?" said I. "Not all of them, I reckon," he replied, turning half round in the saddle, "if those greyhounds are good for anything." "I'll answer for old Spring," said I, "that is the brindled dog on the right; he will make his rush directly, and then you will see the fur fly."

Just then, as if by mutual agreement, the five greyhounds extended their front so as to be on the flanks of the flying herd, then increased their speed, till in ten minutes they were abreast; then they began to close up with the deer. Now the chase is most exciting—deer and dogs are both doing their best, while we have to ply the spur to keep our places in the hunt. At this moment old Spring makes his rush, seizes the big buck by the haunch and capsizes him; the other dogs follow him

example, and the prettiest kind of a skirmish ensues—deer and dogs rolling over in the snow, kicking, striking, biting, and growling. Those of the deer who were not seized by the greyhounds scattered in all directions, and Dr. C., pulling up his not unwilling horse, got a double shot at about sixty yards. One he knocked over and the other he missed. Seeing a young buck going off alone on a course which would cross my track, I start to head him off. He bears off to the right, but after a run of two hundred yards, I close up within twenty yards of him, and give him a ball from my pistol, behind the shoulder; he falls, and I ride up to give him a shot in the head, and have dismounted for the purpose, when up he jumps with his hair all standing the wrong way, and comes at me. Fortunately, however, I have a loaded pistol in my belt, with which I give him a ball through the brains. Then cutting the deer's throat, and having with some difficulty persuaded Kate to allow the carcass to hang across her back, I mount to ride in search of the rest of the party.

The whole thing was over, I soon saw, as I approached the group of horsemen near the grove. The greyhounds had killed three, Major D. had shot one with his pistol, Dr. C. had one, and two of the outsiders had killed one each; eight in all, out of a herd of eleven.

Third: still hunting. This is precisely what the English call "stalking," and signifies going forth alone (or, if attended by a dog, he must keep at heel till you have wounded your game), to do battle against the monarch of the woods; to set man's knowledge and skill against the instinct of the animal. You walk slowly and quietly along through the woods, like a ghost, leaving no sound of your footfall; your eyes glance constantly round; sometimes for five minutes you stand still in the shadow of a big tree trunk, to the color of which your dress corresponds so nearly, that, when not in motion, you are invisible. A stranger of an imaginative turn of mind, on meeting you in the forest so employed, would take you for the spirit of old Daniel Boone, or Natty Bumppo, moving West, out of the way of the settlements. Truly this, and not angling, is the "Contemplative Man's Recreation."

The object of all this spirit-like gliding, is that you may get a sight of the deer before he sees you. It is a question of precedence. If the deer sees you first, and his eyes are quick, he quietly slips off, and you must glide after another. If you get the first sight, and it is astonishing to what a pitch of accuracy the eye may be educated, you stand still, and, like Austria, wait the progress of events. If the deer comes straight towards you, of course the game is your own, if you can keep still till he gets within shot. But if, as is most probable, he takes another course, you must fly from tree to tree, and from cover to cover, with the quickness and invisibility of an owl or an Indian, till you get within shot, when your rifle must do the rest.

This is the favorite manner of hunting deer in the western forests: a man needs nothing for it but a rifle and a good pair of legs and eyes; the latter especially, for a near-sighted man can never excel at this sport. Those, however, who try it, become so fond of it as to despise all other hunting. We have seen deer stalked, with great success, by means of a

sled and a yoke of oxen. Let the hunters lie down in the bottom of the sled among the hay, and let the driver drive his team not directly towards the deer, but round them in concentric circles, gradually lessening in diameter, till he carries you within ten rods of them. The writer was one of a party of four, who by the sled dodge got six deer in one morning, and ought to have killed twice as many, from the number of fair shots we had.

The Panther.—This, the largest and most formidable of the North American cats, is seldom seen upon the plains, except when traveling from one grove to another. They prefer a mountainous and broken country.

The Northern Lynx.—A few years ago this animal was rather common in Northern Illinois, a specimen having been killed within the limits of the present city of Chicago about twelve years since. This lynx feeds upon birds, and other small animals, and seems, notwithstanding its formidable size, to be a timid animal, and easily killed. It is sometimes eaten.

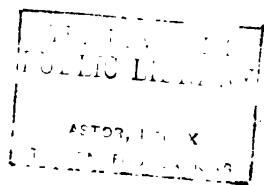
The Black Bear.—Although the country on the eastern shore of Lake Michigan abounds with these animals, they are seldom seen on the west side of the Lake, and then only as transient visitors; they preferring a heavily timbered country, which furnishes them with more food and shelter than they can get on the prairies.

We have always thought that there was something more human about the bear than the other prowlers of the woods; and so think the Indians, who call him "brother," and when they kill him for food, or from a desire to appropriate his thick overcoat, generally apologize to him for the liberty, and attribute it solely to their necessities. Like man, the black bear is omnivorous, though he prefers fruit and vegetables; seldom meddling with the sheep or hogs if he can get berries or mast. He is not aggressive in his temper, but likes his share of the road, and does not allow himself to be crowded. Instead of roving about the country in the winter, mad with cold and hunger, like the ferocious and disreputable wolf, our bear snugly stows himself away in his den and sleeps till spring. He is an excellent boxer, and, in a ring fight, would puzzle the best shoulder-hitter in New York to touch him, while a wipe from his paw would take the conceit out of Hyer or Yankee Sullivan. There are many bear stories about, but the following, by an old Hoosier, is one of the best we remember:

"When I came into this neck of woods, about twenty years back, there was a powerful chance of 'Bar' yer. Many is the good hide I've shucked off the varmints, and many a jar of ile I've toted down to Lar Fayett, for the pottecaries, and me and my old woman always all'owed that bar meat did stick to the ribs better than hog. I was goin' to tell you of her scrape with the old he bar. It was in the spring, airly, one day, when I was away in the timber with the boys, mauling rails, that the sarcumstance happened, which made me laugh powerful, I tell ye. The old woman was alone in the cabin, frying out some pork fat, say near sundown, when this old he, traveling through the timber, smelt the fat I reckon, for he clim the fence and came snuffing round the cabin. We had



SIoux TENTS.



both the guns with us in the woods, or the old woman wouldn't have asked no favors; but as she had no shootin' iron, she fastened the door, and the bar seein' he couldn't get in at the door, he clim up the logs and got to the ruff, so as to come down the chimbley, bein' just naturally bound to have that pork fat. So, as he came backing down the chimbley, bar fashion, my old woman, she jumps to the bed and heaves an armful of straw on the fire. You may believe that and the fat blazed considerable, and so did the bar's posteriums, and the way that old he went up the chimbley wasn't slow. He just made a bee line for the timber, and never said another word about pork fat. And that's the way my woman, she tarried the bar, and kinder skortched his britches."

The Grizzly Bear.—If the last mentioned bear is sometimes a joker, the grizzly bear is not, being the most powerful and ferocious beast on this continent, and, as is thought by those competent to judge, equally formidable with the tiger or the lion of the African deserts. This bear is peculiar to America, and his range is about the base of the Rocky Mountains, where his favorite food, the buffalo, is to be found.

The chase of this animal is attended with great danger, for, beside his enormous strength and ferocity, which generally prompt him to attack rather than avoid mankind, he is so cased in thick skin and muscles like cordage, that a shot, except through the heart or brain, seldom makes any impression. Then the skull is so thick and so formed, that a bullet, unless entering through the eye, is apt to be flattened or glanced off. Lewis and Clark, who met with this bear in their exploring expedition to the Oregon, some thirty or forty years ago, and first described him, tell us of several instances where the grizzly bear fought furiously with two or three shots through the heart, and they found them by far more formidable than the Indians. And we know that the killing of one of these animals is the greatest possible exploit for an Indian, and stamps him at once as a great brave.

The mountain men and trappers, however, do not hesitate to attack the grizzly bear, single handed, and with rifle and knife generally "get his meat," which is esteemed as food, and can be found at the eating houses in California. Sometimes, however, the tables are turned, and the bear, "equal to either fortune," turns out the eater, and not the eaten.

The Badger.—This, a plantigrade cousin of the bear family, is found on the Western plains. It much resembles in appearance the European badger, though there are said to be organic differences between them. It lives in holes in the ground, from which it seldom issues forth by day. It fights desperately when assailed by man or dog, and, being protected by a skin of great thickness, is not so easily killed.

Wisconsin has taken the badger for its emblem "totem," as the Indians call it, as Michigan has assumed the name of wolverine; and we think the former has the advantage, the badger being a more honest and respectable animal than the wolverine, which is a sort of pirate of the woods, lying in wait for defenseless deer, which he pounces upon by stealth, and esteeming it to be his manifest destiny to eat up all the pigs and sheep that come in his way. We advise the Michigan people to

drop the wolverine, and assume the bear — a decent beast that minds his own business.

The Wolf. — Of this animal we have three species, the large Gray Wood Wolf, the Black Wolf, and the Prairie Wolf. The first is a powerful and dangerous animal everywhere, though in this region he does not appear ever to have been so formidable to the human race as in the mountains of the Middle and Eastern States. This may arise from the abundance of his favorite food, venison, in the West, so that he is not often driven by hunger to attack mankind, which he always avoids doing if possible, being a cowardly brute, that dislikes a fair fight.

Twenty years ago the gray wolf was abundant in the wooded parts of the State of Illinois, but being driven back by the approach of man, trapped and hunted, and, more than all, poisoned by strychnine, they are now confined to the heavy timber of the Illinois and Mississippi bottoms, and some of the large groves in the northern part of the State. Though cowardly, they fight desperately when cornered or wounded, and we are told by a hunter, that having caught a gray wolf in a trap, the beast, with the heavy trap hanging to one foot, actually whipped a pack of ten or twelve dogs, several of which were killed or wounded in the fray.

We recollect several years ago, while traveling in the northern part of Wisconsin, in a very severe winter, when the wolves were unusually bold, witnessing an amusing scene. Quite a number of the young men of the vicinity were in a bar-room of the tavern, which was near a heavy tract of timber, when about midnight the wolves were heard howling near the house. Two of the youths, valiant with whisky, seized clubs and rushed to the attack. We all went to the door to see the fun, and by the bright light of the moon we could see the young heroes pursue the wolves to the edge of the timber, shouting and brandishing their sticks in a manner very valiant to behold. Suddenly, however, their charge became a halt, the halt a retreat, and, finally, the retreat a most ignominious flight. The wolves, five or six in number, (and they did loom up large in the moonlight,) pursued the fugitives a short distance towards the house, but were turned back by a shot fired at them from the door. It seems that the wolves had retreated, and drawn the young men into an ambush.

The howl of the wolf is one of the most frightful sounds that a novice can hear in the woods. We were once camping out in Iowa in winter, some seventy miles west of the Mississippi, and at that time beyond the frontier. It was midnight, and all the party were asleep except two of us, who sat by the camp fire at the opening of the tent, smoking, and spinning long yarns, when

“ At once there rose so wild a yell,
Within that dark and narrow dell,
As all the fiends from heaven that fell,
Had pealed the banner cry of hell.”

The whole air seemed to be filled with the vibrations of that infernal sound. Nothing could be seen within the circle of light made by our fire, but outside of it all the wolves in Iowa seemed to be seated, open-

mouthed and vocal. Not being used to such diabolical music, we allow we were badly scared. For the first time we knew what it meant to have our hair stand on end. Our horses broke loose, and crowded into the camp for protection, and the dogs ran between our legs. Our companion, who was used to this sort of thing, replied to the howl with another nearly as long-drawn and as devilish as that of the wolves themselves, which produced a rejoinder from the hairy outsiders. This lasted for about five minutes, when our friend seized his rifle and fired it at random into the howling circle. Instantly all was still, and we heard no more of them that night, though they continued to prowl about our camp for some days.

The black wolf is by some naturalists supposed to be only a variety of the gray species, but we think there is good reason to mark him as a distinct sort. The hunters who are familiar with this wolf, consider him as a more formidable animal than the gray. They roam singly, and are rarely met with anywhere. The last black wolf that we have heard of was killed near the head of Lake Michigan, about five years ago. He had the boldness to take a calf out of a farm yard at midday, which raised the neighborhood upon him.

The prairie wolf is about the size of a setter dog, though more powerfully made, and resembling a good deal, in appearance and habits, the European jackall. He is exclusively a native American species. His range formerly extended to Lake Michigan, on the East, but in the settled parts of Illinois he has become rare. They are swift of foot, live in burrows like the fox, hunt in packs, and are much less afraid of man than the other wolves. We have never heard of any well-authenticated instance of an attack by prairie wolves upon the human family or the larger domestic animals, though they are very destructive to hogs and sheep, as well as to the smaller kinds of game. Before the settlement of Illinois by the whites, the prairie wolves made great havoc among the grouse, trailing the hens to the nest with the unerring nose of the pointer, when mother and eggs would disappear in the capacious maw of the destroyer. The birds were observed to increase rapidly wherever the wolves were driven out.

On the extensive prairies about Chicago, where, twenty years ago, these animals abounded, great sport was had in hunting them with hounds and mounted men. Thirty or forty riders, armed, with guns, pistols, or clubs, attended by all the dogs in town, a motley collection of greyhounds, fox-hounds, terriers, bulldogs, and curs, anything, in short, that could fight or run, would sally forth over the frozen prairie. Some wolves would be started from the long grass and weeds, and a dozen separate runs would be going on at once. The only dogs which could outrun the wolves were the greyhounds, but these, and, if of pure blood, were not sufficiently powerful to kill them. Their game was to run against the wolf, at full speed, generally giving him a fall, and so retarding his progress till the slower and stronger dogs could come up. This wolf fights desperately when at bay, and few dogs like to attack him single handed.

A bulldog or bull-terrier, which grapples them at once, regardless of their

terrible snap, kills them easily. A large and powerful dog, bred between the greyhound and some large and courageous breed, proved very useful, having speed enough to run the wolf down, and strength and courage to finish him. One in particular we remember, as the hero of these hunts. He was a magnificent fellow, standing twenty-eight to thirty inches at the shoulder, tawny colored, like a lion, with a black muzzle, and a set of legs which would carry him up to wolf or deer in a mile's run. He would seize the wolf by the back, and throw him clear from the ground, and such was his strength and activity, that, though he has killed five or six wolves in a day, he was rarely hurt. A deer he would seize by the nose or the haunch, and throw him, then instantly grapple him by the throat, and at these times it was very unsafe for any one but his master to come between him and his prey, for he neither feared man nor beast.

John Palliser, by birth an Irishman, by education an Oxford man — six feet four in height, with inexhaustible spirits and humor, a taste for the polka, a talent for singing and making himself agreeable in all company, a fearless horseman, a tolerable cook, and a dead shot, having exhausted the excitement of European game, panting for fresh fields and pastures new — determined to take himself to the prairies, and have a shot at the buffalo and the grizzly bear. In his voyage out to America he had for one fellow-traveler General Tom Thumb, whose great amusement was climbing to the shoulders of the tall Irishman, and then making a perilous descent at one leap to the bottom of his shooting-jacket, until by repeated droppings the bottom of the garment gave way. At New Orleans, he commenced operations in the marshes by waging war on snipe to the extent of twenty-one brace, and the following day took the solo parts, first of Goliath, and then of Saul, in the oratorio of David, performed by amateurs to purchase a new organ for an Episcopalian church.

In Arkansas Mr. Palliser shot deer by night, with a fire-pan, and carried off seven deer-skins for buck-skin clothes, as trophies. Here, too, he met his first experience of the hospitality of American sportsmen, and tried his first experiment in camping out. He remarks, "It is only when left to our own resources that we sportsmen feel how very helpless we are rendered by our civilization. Very delightful is the refinement of sport in England, rising not too early, shaving with hot water, and tea cream-softened waiting for you in the breakfast-room, guns clean as if not used the day before, the game-keeper following with the load of shot, and an excellent dinner awaiting, without any stint in consequence of the birds being wild, or your shooting nervous. Such were my thoughts as, for the first time, I sat solitary by my fire; but they presented themselves much more forcibly on subsequent occasions, when, tired, cold, and hungry, I encamped after a day's unsuccessful hunting on one of the wild plains of the Rocky Mountains." His first night's lonely camp was marked by the stealthy approach of something in the dark; which something turned out to be a panther. He became tired of tame life in Arkansas, and joined a fur party traveling across the prairies from Independence to Yellow Stone river. On this journey, daily, before sunset, they unsaddled and unpacked the horses; formed with the pack a circular inclosure about ten feet in diameter, and hobbled out the horses with straps and



DOGS AND BEAR.

chains, to prevent their straying; then cut and gathered wood, kindled fires, fetched water in kettles, put meat on to cook, roasted coffee-berries pounded them in deer-skins on the stump of a tree with the back of hatchet, put them in the coffee-pot and boiled them; then, the meat being cooked, set to work to eat, made beds of saddle-cloths, and buffalo robes then smoked their pipes, and so to sleep, as only travelers on the prairie can sleep.

One day they arrived at a lake, and camped when their meat was exhausted and they had nothing but beans to eat; so our sportsman was set to work to kill ducks for dinner, and Mr. Palliser naively observes: "I had to work hard for my ducks that evening. They all fell into the water, and I had to swim for them, but they formed a great addition to the boiled beans we had been reduced to."

After a long journey, sometimes "struggling through immense wastes where, feeling my own insignificance, I seemed carried back to some long past age, and as though encroaching on the territories of the mammoth and the mastodon," Mr. Palliser reached Fort Vermilion, and found it surrounded by a camp of six hundred Sioux Indians, just returned from a successful foray; so he witnessed a scalp dance, and then bought the scalp and the "poor devil's head-dress, made of the scalp of a black bear, for fifteen rounds of ammunition." He also got up a subscription and purchased a poor woman-prisoner, whom the Indians were about to put to death with great solemnity, and set her free at night. She finally escaped: running all night, guiding her course by the stars, and concealed all day; so that in two days and nights she reached her husband and children, "half-starved, but very happy."

In spite of savage Indians, who sometimes shot at him by mistake, and nights in the prairie — where he woke in the morning and found himself lying in a pool of water — on he went, now starving, now feasting on the spoils of his gun, until, as the winter set in, he reached Fort Union. There the inhabitants of the fort were one after another laid up with the mumps; until the supply of fresh meat depended entirely on the traveler. One day he set out covered with a white blanket, and "stalked" a herd of buffalo in the snow so successfully, that he crept about undetected for an hour and laid five of the fattest low; "then the herd bolted in a body, tossing their shaggy heads and plowing up the snow." He cut out the tongues of those he had killed; and, leaving a blanket on one animal, a cap on another, a pocket-handkerchief floating from the head of a third, to scare the wolves, "set off at full speed for the fort; for it was pudding day, and worth while to make haste." He entered just as the clock struck twelve, and feasted on buffalo and venison of his own providing, "dressed in delicious bear's grease and buffalo marrow, by a capital cook."

Listen to that, ye Norfolk pheasant-slaughterers, and bide your humbled heads! Practice makes perfect. After a time Mr. Palliser flayed, cut up, and disposed of his game as neatly as any Indian hunter, and congratulates himself on driving a good trade as a dead shot, by earning white wolf-skins worth two-and-a-half dollars each. But he was not destined to slay buffaloes scathless. — After firing four times at an old buffalo,

our hunter walked up and lodged a final shot, when the old brute charged, pursued, and overtook him. "I swerved suddenly on one side to escape the shock, but to my horror, I failed in dodging him; he bolted round quicker than I did, affording me barely time to protect my stomach with the butt of my rifle, and to turn sideways in hopes of getting between his horns, when he came plump upon me with a shock like an earthquake; one horn shivered my rifle stock, the other tore my clothes. I flew in mid air, scattering the prairie hens that hung from my belt in all directions, and fell unhurt in the snow, while my dying victim subsided not quite over me in a snow-drift."

Some time after this adventure, Mr. Palliser purchased from an Indian woman a magnificent dog. When purchased it took time and trouble to reconcile the animal to its white owner; but eventually Ismah became a faithful, efficient servant, drawing a small sledge called a "travail," during the day, and sleeping on his master's bosom, saving him from being frozen to death at night. With Ismah as sole companion, he set out on a solitary winter's journey along the shores of the Upper Missouri.

Ismah dragged all the spare clothing, dry food, and the flesh of the deer last shot, as they traveled along the ice. "When I stood and looked about to choose a convenient spot to camp, Ismah used to gaze into my face, and whine, as much as to say, 'I am tired too.' When I trampled down the snow, cut and strewed the willows, and proceeded to collect wood, he used to watch me eagerly, and prick up his ears when he saw me take the flint and steel from my pouch, and the dry inner bark of the cottonwood tree from my chest, in order to kindle a spark. The fire secure, I turned my attention to him, unpacked his travail, and placed it aloft against the side of a tree to protect the leather straps from the voracity of wolves. This done, I spread my bed and filled my kettle, took a handful of coffee berries from my bag, washed them in the cover of the kettle, then, pounding them, put them in the smaller kettle, and the meat in the larger, to boil. These operations Ismah used to regard with intense interest. When supper was over—and his share was often very scanty—he sat up close beside me as I smoked my pipe and sipped my coffee. When at last I got into bed, he used to lie down with his back close to my shoulders, and so we slept until morning. As soon as it was daylight we rose; Ismah submitted patiently to be harnessed, and we resumed our march.

"Ismah's relationship to the Lupus [he was of the wolf-dog breed] family was often inconvenient to me, as he used to run off and play with the young Luperkins. One day, after a long march, while looking out for a camping place, a she wolf crossed the ice, and in spite of coaxing and threats, Ismah set off to join her. I shouted to the wolf, the wolf ran off, and away ran Ismah after her, with his travail behind him loaded with every thing I possessed in the world. I followed, shouting, until he disappeared, and then followed the tracks on the snow, until darkness obliged me to abandon the pursuit, and I found myself alone on a vast waste of snow, stretching around me on every side, a hundred miles from any human habitation, without warm covering for the night, with very little powder in my horn, and only two bullets in my pouch! I turned

back and fortunately made the way to the river again, by the light of the moon collected fallen wood, lighted a fire, and sat down to consider what to do next if Ismah did not return. The cold north wind froze the perspiration—which, in the hot pursuit, had run down my face—and formed icicles on my beard and whiskers, that jingled like bells as I shook my head, and dismissed one project after another. I took out my pipe to console myself with a smoke; alas, on feeling for tobacco, that was gone too. I looked at the North Star, and calculated, by the position of the Plow, that it must have been about ten o'clock—the time in England when we discuss a bottle of the best with our knees under the mahogany, awaiting the summons to the drawing-room. I endeavored to trace familiar faces in the glowing embers, till I almost heard the rustling of fresh white *crêpe* dresses round me; when hark! I did hear a rustle—it approaches nearer and nearer, and I recognize the scraping of Ismah's travail on the snow; another moment, and the panting rascal was at my side! Nothing of the load missing or injured. I laughed aloud from sheer joy at the cringing movements by which he showed how well he knew that he had behaved very ill, but I was too well pleased to beat him. I had nothing more to do but to unpack, make my bed, cook our supper, and go to sleep."

On the same journey the hunter again fell short of meat; for one day he sought game in vain, without coming on a single track. On the second day he saw Wapiti deer, but was unable to get near them. That night, tired and hungry, he dreamed continually of delicious feasts and hospitable friends, and waked all the more hungry and disappointed. On the third day, having had no solace but a pipe, he hunted hard without success, and suffered less from hunger than on the second day. He was upheld by confidence that sooner or later he would fall in with game. At length he came upon the fresh tracks of deer, zig-zagging, as they do before laying down. He says: "I remained perfectly still, looking intently with eyes sharpened by hunger, at the copse; something stirred in the willows—it was a deer going out to feed; most fortunately he came on toward me, slowly feeding, until he approached to within about one hundred yards and stopped. I drew up my rifle; but he came still nearer, feeding slowly forward, until scarcely sixty yards off, when I took a steady deliberate shot as he turned his flank toward me. I heard the bullet crack against his shoulder; he rushed a short distance back, and rolled over in the snow. Wood was close at hand. I made a fire, cut, broiled, and eat sparingly of a little venison; fed my dog. Then made a rope of a deer-skin, and dragged the carcass to the camp of the previous night, cooked and eat an enormous supper, smoked my pipe, and slept comfortably."

At length Mr. Palliser reached a hunter's paradise on the Yellow Stone river; built himself a boat of bull's hide, with willow frames to carry his baggage, spoils, and attendants; manufactured a shirt and breeches of deer-skin, and encamped and enjoyed himself. "If I wished to shoot from horseback, a ride of a few miles afforded sport after buffalo; if to stalk Wapiti deer, or black-tailed, there were plenty to be had, with enough toil and labor to afford sport; *grosses corves* (wild sheep) were

to be seen balancing themselves on the tops of cliffs as I sat in my own camp; lots of pheasants were handy on the prairie, antelopes were constantly bounding past, and many a prowling wolf received a bullet while feeding on offal, cunningly disposed to tempt him. The dinners of this Yellow Stone camp would make an European epicure's mouth water — buffalo tongues and humps, elk meat and venison, antelope's livers, wild mutton, and cat-fish, which is a sort of miniature fresh-water dolphin, white, firm and rich, marrow-bones of buffalo bulls, with a fair supply of coffee and sugar;" bread is not mentioned.

But our hunter could find no grizzly bear. Their fresh tracks were found, but the monsters were gone. This grizzly bear, when full grown, measures eight feet six inches from muzzle to stern, and about that size round the body, with feet eighteen inches in length, armed with claws five inches long — a lion cannot be more formidable.

One day, having shot a fine buck, he heard Dauphin, a French Canadian, one of a party he had joined, cry loudly, "*Monsieur, venez ici!*" (Come here, sir), and, looking up, saw him disappearing at his best pace over the brow of a hill; Palliser, following with his loaded rifle, beheld a bear, standing on his hind legs staring about, while Dauphin, concealed behind a rock, was industriously snapping a pistol that would not go off. First master and then man took a shot with the same rifle; and then Mr. Palliser, in spite of the remonstrances of Dauphin, followed the enemy into a clump of trees and finished him. "He was young, only in his third year; but he measured five feet four inches from the rump to the muzzle, and had he been full grown, it would certainly have fared badly with us."

The next grizzly bear adventure was with a five-year-old female with two cubs, who chased Boncharville as he was washing his carbine at a river. "I at first ran to assist my companion; but, seeing the bear at fault, I rushed back to secure my horse, fearing that, on smelling the bear, he would gallop off and be lost on the prairie forever. Seeing me run, the bear charged after me; I rolled the halter round my arm and prepared to face her — had my horse flinched I had been lost — she rose on her hind legs, then turned aside, and followed her cubs. I fired through the bushes, but only hit her far back in the flank, on which she stopped, wheeled round and round, tore at her side with her teeth and claws, and allowed me, fortunately, sufficient time to load again; my ball was hardly down when Boncharville cried out, "*Gardez vous, gardez vous, Monsieur, elle fonce encore!*" (Take care, take care, sir, she is after us again!) and on she rushed. I had barely time to put on my copper cap as she rose upon her hind legs; I fired, and sent my bullet through her heart. She doubled up and rolled to the bottom of the slope; but we did not venture to approach until we had ascertained she was dead by pelting her with sticks and stumps. After this, Dauphin, with a stick and a coil of rope, set out to catch the young sucking bears; but they fought so hard that he was obliged to kill one, and the other bit and scratched so that the old hunter was glad to let him go."

Mr. Palliser was not content until he had shot three more of these grizzly monsters, of the largest of which he says, with his usual candor,

"He rose up, displaying such gigantic proportions as almost made my heart fail me. I croaked again like a bull calf: he came cantering up slowly. I felt I was in for it, and that escape was impossible; so cocking both barrels of my fire-lock, I remained kneeling until he approached very near, when I suddenly stood up; upon which the bear, with an indolent roaring grunt, raised himself once more upon his hind legs. Just as he was balancing before springing on me, I fired, aiming close under his chin; the ball passing through the throat, broke the vertebrae of the neck, and down he tumbled, floundering like a great fish out of water, until at length he reluctantly expired. I drew a long breath and felt right glad at the successful issue of the combat."

And here we may as well end his hunting adventures, of which we have given only a few.

A western hunter gives the following graphic description of his favorite dog, and the adventures of a day:

Phil was a *setter* dog, whose peculiar gift or talent is to trace out birds and stand and mark them, until the hunter comes up to shoot them as they rise, and then to retrieve them for him. But Phil was no common one, I assure you. Of course he could scent a bird at any reasonable distance, and follow its track through the tall prairie grass with unerring certainty; could distinguish at once the track of a prairie chicken or a plover from a hawk or a bittern, and was never known to follow or set the latter, or retrieve them when shot, unless bidden. He was a handsome dog, too, with fine hair, white and brown in spots; with long fringes upon his legs and tail; a hazel eye, long face, and a head that would do credit to a canine statesman or philosopher. His soft silky ears, hanging smoothly down, giving full prominence to the bump (much prized by hunters, though unknown to Combe) of prairie-chickenetiveness. Many a time have I taken down my fowling-piece, slung on my game-bag, while he was upsetting stool, chair and stand in the exuberance of his joy at seeing the well-known preparations for a hunt. Then he would start and run and bark at anything, or nothing, roll over in the grass and then spring to his feet again, to entice me to the prairie or the field. But all these rude demonstrations of joy were stilled in a moment when we had reached the ground where the game might be expected. He then commenced his serious business. No voice is now heard from him, he takes no notice of me except to mark the direction which I take, but with a steady run he courses zig-zag across the field, his tail in continual motion with a rolling swing. Now he stops suddenly, pauses a moment as if to assure himself that he is not mistaken, and then goes on less rapidly. He has scented game; he no longer swings his tail, no longer pursues a devious course, but with a steady, quiet motion, step by step he follows up the scent cautiously, slower and slower; and now he stops. Look at him! It were worth a painter's while to picture him, though few could do him justice. He stands mute and motionless as a statue, his right leg raised and folded at the knee, his tail rigid and straight as an iron bar, his body drawn forward; no motion—you scarce perceive that he breathes. But it is clear that it is not the posture of repose. His earnest look, his keen eye gazing intensely forward at the spot where

the bird has cowered, and every muscle held firmly to its trust. He no longer looks for his master or heeds his presence, or even hears his voice; every thought, every faculty, every nerve feels but one impulse, and obeys one power. Phil has made a "point."

But it was not for his skill in hunting that I most valued him. He had that talent in common with his race; but he had others not often found in a setter. They all know how to track and set birds—it is part of their natures—but they rarely know aught more. They can hunt birds, but that is the extent of their capacity. One is often surprised, astonished even, at their sagacity in this matter, while they betray such extreme dulness in every other. They are dogs of one idea; every other faculty seems to be dwarfed to make a prodigy of this. Their whole power, their whole intelligence, seems concentrated in this one point, and no wonder that it is brilliant; but they have no general knowledge, or even the mind to acquire it. But this was not the case with Phil. He was behind none of them in this particular branch, while he was before them in every other. He had general intelligence. He was not a professor merely, Phil was a philosopher. He had ideas not pertaining to his own department of bird hunting.

You could tell him of other things, and he knew when he understood you; and he would let you know it, not only by doing what you wished, but by his looks, eyes, everything. But I will tell you one of his doings, and you can judge if he does not deserve my praise. But I find I must do this, if ever, at another time; for it will lead me so far into the prairie, where so many things must be explained to enable you to understand me, that this already long letter would be extended beyond all reasonable limits.

But now, before you can fully understand the story of Phil, you must have some good idea of a prairie. But how to give you this, I know not. There is no describing them. They are like the *ocean*, in more than one particular; but in none more than in this: the utter impossibility of producing any just impression of them by description. They inspire feelings so unique, so distinct from anything else, so powerful, yet vague and indefinite, as to defy description, while they invite the attempt. Nothing but the ocean compares with the prairie, in its impression on the mind; and like the ocean, it is impossible to tell in what its distinctive character consists; unless it be their vastness, the want of anything on which the eye can rest, and say that there the prairie or the ocean ends. I think it must be this; for every other feature about them I have seen change, and leave them the prairie still. I have seen them, in the mid-winter, covered with snow; a white waste, cold and bleak, so white that the sky looked strangely blue, almost black, above them, shutting down on them far, far inside their viewless limits. Then, again, I have seen them covered with green verdure, blooming rich with flowers (not in stunted patches like those sweet spots we know in childhood, where some opening in the forest shade lets the warm sunlight in), but by acres, some in curved belts, circling the round knolls; others stretching for miles along the devious wanderings of some water-course; here, with red flaunting flowers crowning the hill-top; there, a few yards of blue-bells

marking some latent spring; and here, a small still lake covered with the white lotus floating on its water so close as to leave scant room for the Ibis, with plumage white as their flowerets, to stand among them.

And again I have seen the prairies, when the first winter's frost fell upon them, their green verdure changed to a light yellow, almost white; the tall dry grass lying flat and motionless, waiting the careless hand of some hunter, or the lightning's flash, to give them to the flames. The wild deer, no longer sheltered by the grass, standing out boldly on the hill-top, their light forms of beauty backed by the blue sky, watching, for hours, the verdureless prairie, waiting until the evening's shade invites them far away to the burr-oaks to feed upon the acorns. The wolf cowering beside the small mound, raised by the gopher for a home, or by the surveyor's landmark; or, conscious of discovery, skulking away to some reedy marsh, gazing back at times with a sneaking look of mingled cowardice and cruelty. The cranes stalking on the prairie, or, in wide circles, cleaving the still air, higher and higher, until their large forms seem dwindled to a speck scarce larger than the golden plover that hurries by so near on its swift wing.

And then again I have seen them on fire, when the bright sunlight dimmed the flames, while their smoke rolled up and on over hill and hollow till the whole sky was darkened. And then I have watched until night came on and the whole scene was changed. The pillar of cloud had become the pillar of fire. There was fire in every form, from the small torch-light made by the tuft of slough-grass, to acres flaming from the long blue-joint on the river bottom. Flames everywhere, now moving slowly on where the sweet grass had enticed the wild flock of deer to crop the herbage close, while the soft night wind just gave it life enough to lick up one by one the few scant leaves still left — now stopped by an old Indian trail, until some loose leaf or bending stem of grass led it across the track to pursue its slow and silent course, now rushing before the wild west wind with a speed that outstrips the wolf and almost overtakes the deer; with loud-hummed roar climbing the hill-side and down the valley unchecked by the dividing stream, and passing all barriers in its fiery course. Here and there staying its speed among the short silk grass that belts some large cane-marsh, while on each side, like the wings of an army marching with quick step while the centre halts, it rushes on, surrounding the whole flat, and then crossing the narrow barrier, on every side seizing the dry reeds and cane, and gathering strength as they draw closer the red circle of their forces; going up at last in one triumphant flash of flames, dying themselves on the last conquered spot, and leaving the eye free amid the sudden gloom, to gaze once more on the far distant fires, miles away, skirting the farthest verge of the horizon like day's first burst of light. (See frontispiece.)

And then, once more, have I seen them after the fire had swept them leaving them verdureless and black — so black as to weary and pain the eye almost as did their white dress in winter.

But all these changes, and more which I have seen, are but so many different phases of the same scene, no one of them, or all of them describe it; it would be the prairie without them. Their vastness, their

solitude, the soberness which they inspire—and in this again they resemble the ocean, for who ever saw one new to the scene laugh on the sea-shore? A thousand minor features make up the picture which would tire in description, and yet without them all description fails to be correct. I will name but two of them, the surface of the ground and its covering. The first is best described by the term rolling hillocks or ridges, varying from two to ten yards in height, irregular, with round basins or long troughs between them, presenting a sky line closely resembling the ocean when a strong wind has suddenly changed its course, breaking the continuity of the swells. And the surface so described is covered over, everywhere without a spot of naked earth, with grass, and much of it of great growth; grass covering acre after acre, mile after mile, with one unvaried interminable green. This grass is from two feet to two yards in height, varying with the soil and species. This refers to the wild prairie away from the cultivated farms. You will perceive at once the difficulty of keeping a straight course across the prairies. I have been “lost” more times in one year on the prairies, than in twenty spent in the woods of Western New York when in their wildest state. Not two weeks since I spent an hour on the prairies within half a mile of home waiting for the stars to come out to guide me. Some time ago a German woman came to my place long before the sun was up, asking help, or rather the help of Phil. Her little boy had wandered and was lost. You know what being lost *in the woods* means, but for a child, that is nothing, is safety itself, when compared with being lost on the prairies. Two within my own knowledge, within as many years, have wandered; one fell a prey to the wolves, and one was never heard of more. You will not wonder at this when you reflect on the description I have given and shall give you. A child of five years old can see over the grass only occasionally, and then with no extensive view. There are no trees to guide, no fences to restrain their steps, but foot-paths enough to mislead them, trails made by Indian or buffalo, leading from one distant ford or woodland to another. And then the sparse settlement makes every course but the right one fatal. These present so many dangers as to render the night and wolf superfluous perils. I strove in vain to explain to the woman that my dog was not a blood-hound but a bird-dog, that he would follow no human footsteps but my own, that I feared he could not be made to follow her boy's track. But she could not or would not believe but that Phil would follow and do anything I told him, and I almost repented having said anything to check for a moment the illusion of hope in the wretched mother's breast. You know that it was not said to save myself the trouble of going with her; I should of course have gone with her at any rate. But she had heard a great deal of my dog, and had seen him track, she told me, the little snipe and plover, whose whole foot was not so large as one of Hanka's toes; and with true womanly tact she reminded me how months before she had gone to show me where a wild turkey had crossed the prairie, and how she had seen Phil take up the sporr and follow it, recounting with earnest interest all the difficulties he had overcome; how the bird flew over the narrow brook, leaving him no track to follow, how he ran

up and down the stream to search for it, and then swam over and scoured the prairie on the other side until he found the track once more. I listened with an aching heart, for I knew the difficulties far better than she could or would. I was soon ready to follow her, and on the way she told me that her little boy had been playing before the door while she went to carry their dinner to the men folks on the prairie. That when she came back he was gone; that she ran over the prairie to seek him, and called him until the men heard her and came to her help; that before nightfall their few neighbors, men and women, joined them in the search; how the dark night came but no child; how she and her husband had wandered through its gloom, calling the boy, and making noises to scare the wild beasts from the place, and how she had left before the first light of morning to come for me. She told me all this while hurrying along at a speed which tested even a hunter's stride, fresh as I was from the night's rest. We reached her house as the first light of the morning began to spread over the premises. It was a small board building of such size as the boards' length would make, on the very out edge of the cultivated country. The sides of the house were banked up, except the doorway, with coarse prairie turf a foot in thickness to the bottom of the small window, on the south a narrow footpath led from the door down a sloping bank to a shallow well, dug near the slough at the bottom. A wagon, plow, and a few more farming tools lay scattered round, and in the house a scanty supply of household goods. At the door lay a small pair of wooden shoes which Hanka had thrown off while at play. A small but unfenced spot was cultivated near the house, while north and east might be seen other cottages like it, scattered here and there at intervals, and on the south and west the limitless prairie, without a tree or shrub, far as the eye could see. But why draw a picture that will not distinguish this cottage or spot from a hundred others on the broad prairie. And now began my almost hopeless task of teaching a setter in one lesson the trade of a blood-hound.

My plans were soon laid. I threw aside my hunting coat, set up my gun, and taking some of the boy's clothing, tried to make Phil understand what I wished him to do. He would smell of them because I told him, but without interest or intelligence, and would then turn and look at the gun as if expecting me to take it up again. I left it, however, and called him out of the house. I was glad to see him smell of the small wooden shoes lying by the door, though this he did of course.

The boy had now been gone some eighteen hours, and no scent of his footsteps could be hoped for near the house, even if Phil could be made to know that I wanted him to follow them. They had searched the day before the grounds around the house, and the foot-paths leading to the neighbors. I determined, therefore, at once to strike off into the prairie. Phil followed me, looking wistfully back at times, at the house where I had left my gun. We had left the house a mile or more, when calling Phil, I tried once more to make him understand my object. He would smell of the little sock which I had brought with me, look wistfully in my face, as if to search out my meaning. He would then start off in one direction, looking back to see if I approved of that. I would call him

back and make him again smell the child's sock, but it seemed useless; he would be off again another way, looking back to see if *that* was right, and being called back again, looked perplexed and discouraged, and walked slowly by my side. The neighbors meanwhile scattered far and near in the almost hopeless search—hopeless, for the boy might have wandered many miles, and we knew that we might pass within a dozen yards of him, in the tall prairie grass, without knowing he was there. But the poor mother clung to me and Phil, with a sinking heart, however, for she could not but observe that he was not searching for her lost treasure. And thus we wandered on hour after weary hour. Time after time I endeavored to make Phil understand me, but in vain. Once he ran to me, looking bright and glad, and when I showed him the boy's stocking he eagerly took it in his mouth and walked proudly, with head erect, as if to say, "Now I understand you want me to carry it." In spite of self-control, my face must have betrayed my disappointment, for he dropped his head and tail, and slowly brought me back the sock, which I took, but at the same time caressed him and walked slowly on. At length he stops again, snuffs the ground, looks pleased, hurries this way and that to catch a warmer scent, looks up with bright eyes at me, then runs slowly, as nosing the ground. We follow him, and on my part for the first time with hope, it *might* be he had at last caught my meaning. But then again he might be following the track of game, and this was the most natural supposition. But no, he is scenting up a tall weed, too high for a bird to touch; it cannot be deer, for their sharp hoofs would have left a print on the sod which would not escape my eye; nor wolf, for Phil has not the angry look, the glaring eye, and lips drawn up to show his white tusks ready for his foe, features which the wolf's scent always gives him. But on he goes, scenting every tuft of grass, or now unheeded prairie flower, pausing at some, and snuffing a long slow breath, with eyes half-closed lest light should interfere with the one sense on which he relies. The mother is close by me, asking every moment "Is he tracking Hanka? will he find Hanka?" I dare not say yes, for I am not certain, but I have never seen him move so after any kind of game, and I know his varied movements when pursuing each. But the track is not warm, whatever made it, for he stops, now turns round and stops again, then takes a wider circle and comes round to the same point again; "he is at fault." He makes another effort on a wider circle still, and is yet at fault. He now gives one sharp cry of angry vexation, and then turns suddenly and retraces his own footsteps, following at a fast run his back track, several hundred yards. Stops, scents the ground, catches the trail and follows over the track once more, cautious and slowly, to within a few rods of first fault—and then turns off with cheerful steps. He has recovered the trail and runs briskly on, but soon checks himself and turns half round, as if on second thought he would examine a weed he had just passed. I examined it too, and there, on the dry rough stem of the resin-weed, hung a few shreds of blue cotton. The mother saw me looking at them, and then ran forward and seized the precious relic, "It was Hanka's, I knew it was Hanka's!" I thought so too, for the color is such as no Yankee has yet imitated with success.

But Phil has breathed on it, and she has handled it, and I cannot judge how long it has hung there. But she is calling her friends to come in. In the meanwhile Phil has got the start of us and we hurry on to overtake him, but cautiously avoid the track he follows, lest he might be at fault again and have to retrace his steps.

How intently the mother watched Phil's movements, but happily without the fear which troubled me, who could understand his difficulties far better than she could. But he is going steadily on now, not fast, and I have much trouble to keep the impatient mother from outstripping him, and soiling the trail. The crowd gather, one by one, after us from the prairie. Keeping them at a distance as well as might be, we follow close by Phil, watching his every movement. He's working gloriously, but on a faint trail. He understands the matter now, and has all our excitement. With his mouth open, lest the too strong draught of air through his nose should blunt the delicacy of its nerves, he tracks for hours the wanderings of that child. And now the last doubt as to the character of the track is removed, for just before us, in an old Buffalo trail, is a child's track. I hastily put my foot over it to hide it from the mother's sight, for fear her eagerness might interfere with Phil, our only hope and guide. But the effort was vain, for she noticed the movement, and, darting forward, saw another track. I stopped her before she could reach it, and while she is crying, almost screaming, "'Tis Hanka's sporr, 'tis Hanka's sporr; mein kint, mein kint!" I examined with a hunter's eye and care the track. It is a child's foot-print, beautifully moulded in the soft dust of the Buffalo trail. It was made long after the sun was up, and the dew gone, as the dust was dry when the foot pressed it, for, although smooth, it has not the coherence of dust, pressed and dried afterwards. The slightest breath disturbs it, and the slow-worm, which has made the only trail across it, has scarcely crawled ten yards beyond along the Buffalo path, which it is painfully pursuing with dull, tortuous movement. Yet it was clear that for some hours the sun had shone upon that foot-mark, and it might be miles must be passed before we could overtake the foot that made it, unless stayed by sleep or exhaustion. The task was not easy, for the boy had taken the Buffalo path. I cautioned the crowd to keep back at least a stone's throw, and hurried on to overtake Phil, busy in that most difficult and delicate operation, following a track over dry dust. But he was working well. Cheerful and confident, swinging his fringed tail around with its widest sweep, dodging his head from side to side of the narrow path to catch the scent left on the green herbage at its edge, where the boy's clothes or hands had chanced to touch. Phil and his master were both excited, and the scene was enough to excite any one. There, on the wide prairie, in the bright sunshine, the deep blue sky above and the green earth beneath, bending alike to meet at the horizon. The ancient path we were treading, made long years ago by the large buffalo and the pursuing Indian, both banished now to the Far West, withering before the pale face of their common enemy. The trail now leading over the low hill-tops; now down their gentle slopes to the low grounds, skirting the marsh, then rising up again. And then the game we were pursuing—not to kill but to save—richer than the finest

fur or proudest antler that dwell on the green deserts; for it was the dearest treasure of two human hearts, the richest gem of a prairie home. But Phil has stopped by a large gopher-mound, near the hilltop, where the grass is shortest, the mother and myself beside him. The boy has been on the hillock, doubtless, to look out for home. Vain hope! No sign of human habitation or human handiwork can be seen from here. He had turned round and round upon it, but could catch no sight of any particular object. Campbell's last man was scarcely more hopelessly alone. He had sat down to rest him, perhaps to weep; for I could see the print of his heels half way down the small earthen hillock. But he had left; and Phil, having snuffed for many rods along the trail, in vain, now came running back, and taking a narrow circle round the hillock and recovering the track, starts off in a new direction. Fortunately, now the track leads through the green grass, and Phil follows swiftly, so quickly as to render needless my caution to the crowd; for we have left them far behind, and none but the mother and myself keep up with Phil. He leads us down the hill to a small brook, where the boy had gone to drink. We could see where his small feet had struggled in the marsh, and where he had knelt down, both hands were printed in the soft soil. From here, the trail turned back again towards the high ground and the distanced crowd. But now Phil stops a moment, and his whole manner changes. He no more noses the ground, following the various windings of the track; but, with head erect and neck stretched out, marches straight forward, with steady gait and gaze. He no longer heeds the track, for he can scent the boy where he lies hid. I noted the change at once, and knew its meaning, but dared not tell the mother. She observed it soon, and cried out that Phil had left off hunting; but in an instant, recollecting to have seen him retrieve, cried out "He has found him!" "he has found mein kint!" and, rushing past us, in an instant more, I heard the boy's scream of fright, and her wild cry of joy.

We were soon with her, and Phil seemed almost disposed to dispute her right to the child, but joined most heartily in her exultation, leaping upon me, running to the boy, as he lay in his mother's arms, rubbing his nose on his face and hands, then racing away again to greet, with boisterous mirth, each new-comer to the group.

We were now on our way home, laughing and shouting, a joyous troop. I led the way; Phil followed me close, except at times, when he went back to look after the boy, carried in the strong men's arms, by turns, with his mother watching beside him.

I left them at the end of three miles, and struck across the prairie for my home, some five miles distant, and reached it at nightfall, tired with my day's adventures.

RED RIVER OF THE NORTH.

From Ross's History of the Red River Settlement, we gather the following facts :

Forty-five years ago the most powerful potentate on this continent was one Thomas Douglas, Earl of Selkirk. Mr. Madison had power enough to contend with all the might of Great Britain ; but Thomas Douglas ruled a far wider realm than he. He was the chief of the Hudson Bay Company. No carpet knight he ; in the depth of the pathless woods, on the virgin streams, in the bosom of the arctic snows, his spurs were won. A man of private means, which he sacrificed to this Company, he was also brave and enterprising. Neither expense, nor danger, nor obstacles, could deter him from his resolves. To the perseverance of the Scot he united the fire of the Celt ; with the proud self-reliance of the peer, he combined the shrewd tact of the merchant.

At that time the great fur country was disputed by two rival companies, the Hudson Bay Company and the Northwest Company. Their charters were distinct, and so were their territories. But there was not room for both. Every man in the Northwest knew that one of the two must perish, and those who measured the respective strength of the rivals, said confidently that the Hudson Bay Company was doomed. Thomas, Earl of Selkirk, made up his mind that it must conquer, and that the Northwesters must go to the wall.

Examining with the eye of a soldier the country where the war was to be carried on, he saw that two grand essentials were wanting to his side — physical strength, and a basis of operations. To supply both, he obtained from the Company, and from various Indian tribes claiming to hold dominion over the territory, a grant of land in the neighborhood of Red River, a tributary of lake Winnipeg, which joins the lake about 100 miles northwest of Fort William, and made arrangements to transport thither colonists from the Scotch Highlands. A stout colony firmly established there would not only equalize the strength of the combatants, but would afford the Hudson Bay Company an unrivaled basis of operations, as well as a convenient stepping-stone to the trade of the West. Accordingly, in the summer of 1812, the Earl of Selkirk transplanted the "first brigade" of colonists to Red River. The settlers were to have a hundred acres of land each, to be paid for in produce (the payment was afterwards remitted) ; they were to have a minister of their own persuasion ; they were to enjoy the rights of British subjects ; and they were guaranteed a market at their own doors for all their produce. On these terms hardy Highlanders were not wanting to risk the adventure.

But neither were the Northwesters blind. Their preparations were made silently, effectively. No sooner had the "first brigade" arrived, than a band of men, begrimed with war-paint, dressed in Indian dress, and armed to the teeth, rode down upon them and bade them depart. Strange to say, there was not an intelligent word spoken on either side. The colonists spoke nothing but Gaelic ; their assailants Indian-French. But the gestures of the latter were too plain to be mistaken. Out of

charity they agreed to carry the women and children on the cruppers of their horses; the men were to walk. For the "services" of their guides they paid as they could. A woman gave her wedding-ring; a Gael the cherished musket his father had borne at Culloden. So they traveled, sore of heart and foot, by the side of their conquerors, to Pembina.

After living there on charity during the winter, they returned to Red River in the spring. A year's peace enabled them to break ground and rear shelter. In 1815 the Northwesters were upon them again. This time there was resistance. Accordingly the Northwesters burned down the Colonial House, took the Governor prisoner, killed his aid. Then more fighting; and finally, the brief mandate from the Northwest headquarters: "All settlers to retire immediately from the Red River, and no appearance of a colony to remain." A command executed to the letter. Three hundred miles over the wilderness the Highlanders were sent in exile, and their houses burned down.

Nothing discouraged, the Hudson Bay Company sent a strong force to escort the exiles back to the settlement. A new brigade arrived just in time to help them rebuild their houses. The Northwesters changed their tactics. They too hired Gaels, and sent them to Red River, with instructions to seduce the colonists to leave the place. The Highlanders, proof against corruption, could not resist the old familiar sounds of the Gaelic. They deserted in droves. Depopulation menaced the settlement. The Earl of Selkirk calmly prepared to import more brigades.

At length, in June, 1816, matters came to a crisis. News reached Governor Semple at Red River that a body of 300 horsemen, war-painted and heavily armed, was approaching the settlement. In a rash moment he armed himself and twenty-seven others, and marched out to parley. At a short distance from the enemy he halted, and consulted his aids. At that moment a ball from the enemy struck a man at his side. A volley followed, and twenty-one of the twenty-eight, including the Governor, were shot dead; the other seven escaped, wounded. The victors marched into the settlement, sacked and burned the houses, carried off all that was worth stealing, and drove out the colonists, warning them that they would be hunted down and shot like wild beasts if they appeared there again. It was some consolation afterwards to the survivors of the ruthless attack to discover that twenty-six out of the sixty-five Northwesters who fired on Governor Semple perished violently within a short period.

Then the Earl of Selkirk acted. He was in the country. He had brought with him from Europe a battalion of Swiss mercenaries of the Dalgetty stamp—men who were called *De Meurons*, from an old colonel of theirs, and who "feared neither God, man, nor beast." With these he marched directly on Fort William, the head-quarters of the Northwest Company, and took it. This was a fine piece of strategy, as it threw the Northwesters on the defensive, and made the Hudson Bay party the assailants. Under cover of the capture of Fort William, the Earl led back the exiles, for the third time, to Red River, remitted the price of their lands, and reestablished the colony on a new and solid basis. He chose mill-sites, set apart lands for religious and educational

establishments, surveyed the colony, advanced the settlers tools and stock. Under his directions agricultural operations were commenced on a sound principle, and in some spots a yield of forty-fold rewarded the Highlanders' industry.

Still, as farming had been begun too late, the harvest was scanty, and at the approach of winter the whole colony abandoned the place. They fled to Pembina, there hoping to subsist on the product of the chase. When they arrived there, they found they must join a party of Indians and half-breeds which had set out some days previously. Off they started, through the snow. They were ill clad, and ill supplied with food. The thermometer ranged from 35° to 40° below zero. "Our sufferings," said one of the wretched Highlanders, "were almost beyond human endurance, and even at this distant day we shudder at the painful recollection; for many a time, when the last mouthful was consumed, and our children crying for more, we knew not how or where the next morsel was to come from. A rabbit, a crow, a snow-bird, or even a piece of parchment, would be found, perhaps; and thus from time to time we kept body and soul together. . . . We reached the camp when the last morsel of food was gone, and we were at the last gasp on the eve of Christmas-day."

Starvation avoided by entering the service of the Indian hunters as camp drudges, the Highlanders returned to Red River in the spring. This fourth beginning was the most promising of all. The North-westerners only carried off a man from time to time. The weather was fine; the crops promised well. Hope began to cheer the settlers; when, alas! "just as the corn was in ear and the barley almost ripe, a cloud of grasshoppers from the west darkened the air, and fell like a heavy shower of snow on the colony." In one night crops, gardens, and every green herb in the settlement perished. The Highlanders wept.

To Pembina again that fall, and more sickening misery there. In the spring a fifth attempt to settle Red River. But the June heats quickened the larvæ the grasshoppers had left in the ground. They arose from the earth in masses. They lay four solid inches deep on some spots. They poisoned the water. Men shoveled them aside with spades to make a way into their hovels. No green thing—neither the herbs, nor the leaves of the bushes, nor the bark of the trees, nor the grass of the plain—saw the September of that year. Even out-door fires were extinguished by the shower of insects, and the air was infected by the effluvia from their putrifying corpses. To return to Pembina was a necessity.

But the perseverance of the Highlanders grew nobler with obstacles. For the sixth time, in the spring of 1820, they returned to Red River. Lord Selkirk's iron will knew no such thing as failure. The men had not even saved seed out of the general ruin. At a cost of \$5000 he procured 250 bushels of seed wheat from Missouri. Again the land was sowed; and again the bright days of June were darkened by the grasshoppers. But man can always live down obstacles. The plague abated. Early in the season the grasshoppers disappeared, never to return; and for the first time in their eight years' experience, the Red River colonists

gathered in their harvest safely. More colonists arrived—Swiss, Germans, and Scotch. Men still starved at seed time. The poor Swiss suffered horribly; bartered their all for the meanest pittance. Men gave their guns, women their rings, or what was dearer still, for a cat-fish. But the colonial roots had struck, and, in comparison with the past, these seemed very bright times.

But the end was not yet. Lord Selkirk died an exile in France, having escaped from the sheriff sent to arrest him for the affair of June, and his death was the signal for a new plague. His deputy, the Governor of the settlement, a fellow named M'Dowell, was as great a pest as the grasshoppers. In the wilds of Red River he kept baronial house, with "secretaries, assistant secretaries, accountants, orderlies, grooms, cooks, and butlers." From the time the stores of rum arrived till the puncheons were empty, the Governor was never wholly sober. When his guests were assembled to make a night of it, the heel of a broken bottle, filled with wheat, would be set on a cask, and a man stationed beside it, with orders to take out a grain for every bottle filled. As the carouse went on, his Excellency would call, "Bob, how stands the hour-glass?" To which the sentinel would reply, "High, your honor, high!" And the guests would set to work to lower the pile of grains with renewed energy. This fellow plundered the colonists shamefully. Lord Selkirk's orders were that they should be supplied with all necessary tools, seed, etc., on credit. The Governor received their orders, charged the goods against them, but often forgot to furnish the articles required. He forgot, in the same way, to credit them with the work they performed; and had no doubt realized a handsome fortune at the time he was relieved of his duties.

Having got rid of him, the colony was afterwards blessed with a new ruler who had the advantage of being a cousin of the Governor of the Company. His name was Pelly. His plan was to take every thing easily, and lay trust in Providence. On one occasion, an Indian was brought before him to be tried on a charge of murder. It was proved that he had sallied forth with a party of warriors of his own tribe to make war on some enemies of theirs. Being unsuccessful in his search for the tribe in question, and at the same time unwilling to return home without a trophy, he met an old woman of his own tribe, killed her, and took her scalp. When the evidence was complete, the Governor turned to the culprit, and sternly remarked to the interpreter: "Tell him that he has manifested a disposition subversive of all order, and that if he should not be punished in this world, he is sure to be punished in the next. Let him be discharged!"

Struggling on as best they could under such rulers as these, the Red River colonists reached the year 1826. A fearful storm in the December of 1825 commenced a new catalogue of mishaps. The buffalo were driven from their haunts by the storm; the cold was intense: what from the frost, and what from famine, thirty-three persons perished, and many others were severely tried. That winter the thermometer often marked 45° below zero, and the snow lay three feet thick in the level plains. On the 2d May the thaw began, and the river rose nine feet perpendicular in

twenty-four hours. The Indians stood aghast. On the 4th the waters reached the cellars; on the 5th every house in the village was abandoned. The settlers flocked to the high grounds, some losing all their property. A current set in toward Lake Winnipeg, and on the surface the survivor of the deluge watched their houses, barns, carriages, furniture, fencing and everything else that would float, drift steadily toward the great lake. For nineteen consecutive days the waters rose, and every trace of the colony was washed away. On the twentieth day the people held a council on their hill-top, in order to decide whether they should sail in search of a new home. While they were debating, with weary hearts, not a few among them yet clinging to the scene of their miseries, news came that the waters had not risen an inch for many hours. The council broke up. So intense was the anxiety that no man spoke. Some seized rods and planted them in the water to serve as tide-gauges. Others, less hopeful, sat sternly down by the side of the deluge, gazing at it with stony faces. Before long, men came running up to say that the news was correct. The water certainly did not rise; nay, more, it was falling. There could be no doubt of the fact, and the colonists unanimously resolved to stay where they were. They waited patiently, and on the 15th June stood once more on the site of their lost village. A new beginning was made, and seed sowed the 22d June, in time for the fall harvest.

This was the last of the beginnings of Red River settlement. From 1826 to the present time it has been continuously occupied. But its fortunes—after it became a fixed fact—still fluctuated widely and erratically. Who would expect to find a Rue Quincampoix or a fancy stock fever at Red River? Wall street must look to its laurels.

The first bubble was the Buffalo Wool Company. This was so wonderful a concern, and so certain to make the fortunes of every stockholder, that it was incomprehensible how sane men had lived a week at Red River without lighting upon it. Nothing to be done but to walk out into the plains, kill buffalo, take their wool, dress and weave it; cure their hides and tan them. Here were woollen goods and leather not only for the whole of Rupert's Land, but for export. A company formed, a palatial factory erected, and orders sent to England for machinery, implements, dyes, and skilled workmen, the work began. Every soul was enlisted. Women left their babies, men their fields. Who would till the fields for a beggarly subsistence, when the Buffalo Wool Company offered wealth in exchange for a few months' exertion? Every body was either a skinner, sorter, wool-dresser, teaser, or bark manufacturer: wages were no object; so little girls got \$3 a day. Net results: every body at the factory got drunk day after day; the little wool collected was spoiled; the hides rotted; cloth which cost \$12 a yard to make, sold for \$1 in England; the Company failed, and the colonists lived on short commons that winter.

But failures seem to have been regarded as encouraging on Red River. The Earl of Selkirk sunk no less a sum than \$425,000 in planting the colony; his successors and their assignee, the Hudson Bay Company, continued to extend liberality to the settlement on an undiminished scale. All at once the Governor discovered that immense fortunes were to be

made by growing flax. Premiums were offered for the best specimens. Choice seed was imported. Every thing was abandoned for flax. Flax was to be the great staple of Red River. But when the seed came, and was distributed, matters were so arranged that the Governor's friends got all the best qualities, and consequently all the premiums. Against this the democracy of Red River not unnaturally rebelled, and the flax scheme fell through.

It was followed by another Wool Company, sheep, and not buffalo being, however, the wool-bearers this time. A sum of money was subscribed in the colony for the purchase of sheep in the United States, and a party sent to Missouri to buy. The commissioners arrived at St. Louis, visited the farms, found sheep, and offered \$1.50 a head. The Missourians—who were probably Yankees—thinking the Red River men wanted them badly, asked \$2. On this, Rae, the head commissioner, took offense, and swore he would have nothing to do with such extortionists. The Missourians repented, and offered to take \$1.50; but Rae was inexorable, and shaking the dust from his feet, journeyed to Kentucky, 450 miles further. There he bought the sheep at his own price, and had the satisfaction of paying for their pasture and keep every night on the way home. On the journey through Missouri he halted to shear the sheep, and contracted to deliver the wool, at a high price, to a speculator. When the wool was ready for delivery, the purchaser proved unable to raise the whole amount fixed; other bidders, at lower rates, offered to take it; but Rae, furiously indignant, refused to take a cent less than the previous price, and had the whole quantity burned on the spot. The weather was hot when they reached St. Peter's, and the sheep had 1500 miles to travel. Rae's ardor admitted of no delay. If a sheep showed signs of weakness, the order was, "Out its throat, and drive on." As many as 45 were killed of a morning. When the party arrived at Red River, out of 1475 animals, only 251 survived; and of these many soon perished from the effects of the journey. So the sheep scheme failed.

It was followed by a new Company, the "Tallow Company." The Governor confessed that errors had been made; but about this there was no mistake. Were not the plains teeming with pasture? Where could limits be set to the production of hides and tallow? A herd of 473 cattle was purchased, and the stock-gambling was renewed with fervor. Each animal was tastefully branded on the haunch, "T. T."—meaning Tallow Trade, and the Red Riverians confessed they had never seen so beautiful a sight as the whole herd grazing peaceably together. Uncommon accident: early in May a severe frost occurred, and twenty-six of the foolish animals died. However, summer set all right, and the stock was at a premium. When winter came it was a different story. Thirty-two cattle died of the cold; on very severe nights, when the thermometer marked 40° and 45° below zero, the ears, horns, hoofs, and tails of the poor creatures fell off. Besides which, the wolves helped themselves to fifty-three. This was discouraging. Still, with summer, the stockholders' courage revived, and there was more talk of fortune's in tallow. The second winter settled the business. With all their care, the managers

could not keep out the wolves or protect the herd from the cold; and before spring, the assets of the concern were sold by auction. The tall fortunes had melted away.

Of all these failures, John Company generally paid the damage, and the colony never ceased to prosper. It became an object for the company to retain within their dominions those among their factors who had realized small fortunes; and as many of these had married native women, whom they could not introduce into European or civilized American society, and were, besides, attached to the wild life they had led, they were only too ready to accept Red River as a sort of refuge for their declining years. These constitute the aristocracy of the settlement. Next to them came the French Canadians (the Swiss and Germans have mostly disappeared), who are not to be distinguished from the men of the same race in Lower Canada; and again below them come the half-breeds. The Scotch and French Canadians are mostly farmers, and some of them uncommonly successful farmers. The half-breeds dislike settled life. They prefer the excitement of the chase, or the idle life of the fisherman.

They are technically termed plain-hunters. Every spring they collect at the fort, to the number of a thousand or two — men, women, and children — buy, beg, or borrow carts, horses, guns, knives, powder, oxen, and other hunting materials; elect a chief captain and a dozen second captains; establish rules for the guidance of their hunt, and start forth into the plain. A priest accompanies the party to bless the undertaking. The rules established on the occasion are rigorous. No buffalo must be hunted on Sunday; disobedience of orders is punished with the destruction of the offender's saddle for the first offense, with a flogging for the second; theft even, where the object stolen is only a sinew, is avenged by the exposure of the thief in the middle of the camp, while the criminal thrice shouts his name, coupling with it the word "thief."

The march was long and often severe. With the plain-hunter there is no medium between a feast and a famine. Women and children often cry themselves to sleep every night for a week from sheer hunger; next week they are all ill of a surfeit. When the expedition reaches the hunting-ground, the camp is put in order. The carts are arranged in a circle, within which the women and children are placed. This done, the hunters mount their horses and survey the ground. With spy-glass in hand the captain reconnoitres the plain, and as soon as a herd of buffalo is discovered, assigns to each lieutenant his place in the hunt. When ready, and the men prepared — as many as four hundred often start together — the commander gives the word "Start!" It is a cavalcade. The whole body advances first at a slow trot, then at a gallop, then at full speed. As their speed increases, the earth trembles; when the herd perceive their enemy, and begin to paw the ground and make off, the sound and shock are like an earthquake. A cloud of dust arises mingled with smoke. Right into the midst of the herd dash the hunters, firing as they go at the fattest cattle; ride on and on, through and through the close ranks of the buffalo, until there are but a few stragglers — the leanest brutes — alive. Each man has his mouth full

balls, and loads and fires at full gallop. As he seldom pulls a trigger until his gun is within a few feet of the mark, he hardly ever misses. Though the hunt seldom lasts over an hour or so, a good hunter will kill his ten or twelve buffaloes. It often happens that the party brings over twelve hundred tongues into the camp. The herd dispersed, the horses are relieved from duty, and the carts come into play. Their functions — or rather those of the hunters when their turn comes — appear the most embarrassing part of the business. Out of twelve hundred carcasses lying together, and shot by four hundred hunters, to find the beasts shot by each, appears a knotty problem. It did not put puzzle the plain-hunters. Every man knew his victims, and very few disputes arose. A hunter was once asked how he could possibly discover his eight or ten buffalo out of thirteen hundred, which lay huddled together on the plain. The half-breed replied :

"Suppose four hundred learned men were all to write words on a piece of paper; would not each of them be able afterward to recognize his own handwriting?"

Just so, the plain-hunter recognized his shooting.

The task of skinning, drying, and manufacturing tallow and pemmican, mostly falls to the women; but as this business is often dangerous, the hunters superintend it. A hunter may escape the common accidents of the chase — broken bones, buffalo horns, and the like — and at the last moment fall a victim to the treacherous Sioux, who lurk about in the long grass on the wait for scalps. The fate of one poor fellow, named Louison Vallé, who perished in this way, is well remembered at Red River. He was skinning a buffalo after the chase, his little son keeping a look-out on his father's horse. The boy's attention flagged; Vallé's experienced eye detected a peculiar movement in the grass near him. He had only time to shout, "Make for the camp, my son! make for the camp!" when a shower of arrows overwhelmed him. The boy arrived safe in the camp and gave the alarm. A party was instantly started in pursuit of the murderers, and before night eight of the twelve were hunted down and shot.

The settlement itself, in the short summer season, is like every other flourishing agricultural district. Vegetation is as luxuriant as in the tropics; and cattle, apparently without number, pasture on the wilds which have never been scarred with a fence. Among the Scotch settlers especially, comfortable houses, corn-yard, parks and inclosures betoken a very high degree of material prosperity. The French Canadians, in the invariable blue *capote*, with red belt, might be mistaken any day for the habitants one meets with traveling through Lower Canada; and the half-breeds — though a lower race, and essentially distinguished from the French Canadians by their habits of idleness and filth — dress, and, in many respects, live like them. Some few of the half-breeds, who are blessed with an unusually happy disposition, will work, and acquire, in course of time, a comfortable settlement; but by far the greater portion of the race preserve nomad habits throughout, and are contemptuously called squatters by the legitimate Red Riverians. They often have a passion for show; and will leave their children and wife in rags and

ashes in order to appear on Sunday in a handsome turn-out. Others, again, and this is more characteristic of the women than the men, will sacrifice every thing, will even work for tea. The bashful maidens of Red River (the half-breeds, we mean), who will hardly ever dare to look at a stranger in the face, or answer a civil question, who would deride an offer of dress or even money, can not resist the temptation of a couple of pounds of souchang.

The life of the thoroughly vagabond half-breed is well illustrated in Mr. Ross's sketch of Baptiste l'Esprit. He was, it may be observed, a well known character at Red River, and the type of a large class.

Baptiste had a wife and children; but they were all his property. When spring comes round Baptiste wants to join the hunt. He is in want of every thing. Wishes to make you believe he is the most honest fellow in the world. Wishes you to trust him, to try him once more. Promises every thing. Tries one; tries him this way, that way, the other way, every way, but is refused; yet the smile of confidence is never off his countenance while in his supplicating mood. Nor is it an easy task to resist importunities so urgent, and particularly when enforced by an object of charity; yet Baptiste is refused. But he is accustomed to refusals; such things never discourage him. Baptiste tries another and another, but with no better success. Unfortunately for Baptiste, his character is known. Nevertheless, Baptiste, still confident in his own cause, tries another; accustomed to persevere, tries again and again; and at last, by dint of importunities and fair promises, gets a horse to hire from one, a cart from another; but as the risk is great, the price is in proportion. A man of means gets a horse and cart for \$10 a trip. Baptiste promises \$20. But he is in want of ammunition, of every thing else. Baptiste tries again; tries one, tries two, tries a dozen; at last succeeds. The rogue and the fool meet. Baptiste still wants clothing — something from the merchant as well as the settler. Himself and family are naked. Baptiste sets out again; calls here, calls there, travels up, travels down, nothing discouraged; gets credit from some merchant at last. After a month's preparation, and before Baptiste is half ready, the time for starting arrives. The others are off; Baptiste must start too, ready or not ready. At this stage all Baptiste's hopes hang on a hair; he must go, or all is lost; but he can not go without something to eat. Charity steps forward, and a day after the rest, off goes Baptiste, helter skelter, with his horse and part of his family; but if no horse, as frequently happens, they tramp it on foot, neck or nothing. At the camp all is bustle; no one is idle but himself. The dogs eat, but Baptiste starves in the midst of plenty; asks, begs, lounges about, but shows no disposition to assist any one. He is above working; can not work. Sympathy steps forward. Baptiste must not starve. Gets a piece from one, some from another. Baptiste eats, but can not make provisions; has no servants; himself indolent, his family more so. They can do nothing but eat. However, they live well on the charity of others, and that is all they care about. Days pass, weeks pass, the summer passes; Baptiste eats, sleeps, smokes, and all is right; but no load; nothing to pay the hire of his horse and cart. The busy scenes of the camp pass unheeded

by him. No effort made. Late and early every one is at work. Baptiste alone is idle, but consoles himself with saying, "There is time enough yet." Before he looks about him the hunters are loaded. A move is made for home. Baptiste is roused from his apathy. His cart is still empty. Begins to bestir himself. Goes round, asks one, asks two, asks this one, asks that one, asks every one, for something to put in his cart; promises this, that, and the other thing. The good people were shy, but Baptiste was not to be discouraged, did not slacken in his importunities; they upbraided him for his indolence, mistrusted his promises. Baptiste is no favorite; nevertheless, he could sing a good song, tell a good story. Some pity his family; Charity stretches forth her hand, and now the cart is loaded in a trice — Baptiste the while as proud as if he had done all himself, quite satisfied, happy as happy could be. The last to start, the last to camp, Baptiste, fat as a seal, and sleek as an Esquimaux, arrives to resume again the delicious enjoyment of indolence.

As soon as he arrives, he sits down, smokes his pipe, then unloads his pony, and tells the story of his journey. Is highly pleased with the trip; praises his own industry and success. "Look," says he to his wife, "at this piece, look at that piece, and at that," turning them over and over. His wife is charmed; counts his profits. There is enough to pay all, so now they can enjoy themselves. A day, a week passes; but not a word about paying off debts till the load gets nearly expended; then they begin to reflect. They distribute the remains of the profits a day after the fair. This piece is laid aside for a new gown for Madame, that piece for a shawl. So much for tea, so much for tobacco, the two great luxuries of Red River; a bit to this gossip, a bit to that. Madame has her cronies. Then there must be a merry let out. Friends are invited, a feast given, the last piece disappears. The load is gone. Then Baptiste for the first time begins to think of the borrowed horse, the borrowed cart, the generous friends who supplied him at starting. "We must," says he, "pay something; a little to one, a little to another." The happy couple reason the matter over and over. The piece set aside for the new gown is cut in two; half goes for the horse, half for present use. "We can do no more now," said the wife. To this Baptiste adds, "Amen. But we will pay all next trip." The new shawl, the tea, the tobacco, etc., are attended to, and the cronies are not forgotten. After another consultation, Baptiste, with the half piece worth two dollars, the eighth of what he had promised, goes to settle with the owner of the horse, finds him, hangs down his head, is silent for some time, at last looks up with a sorrowful countenance, tells a pitiful story, very different from the one he told his wife. "I have been unfortunate," said he; "I had bad luck; my horse was sick, I broke my cart in the plains. Most of my provisions I lost in crossing a river. After a hard summer's labor, I had scarcely a mouthful left for my family. Brought nothing home; my cart was empty. Ask my comrades; they will confirm the truth of my statement. Here," says he, holding up the half piece, "is all I can give you now; but Baptiste never cheated anybody; if you lend me the horse for the next trip, I will pay you all honestly." Sympathy for poor Baptiste, and a desire to be paid, have their effect. The

lender believes Baptista. lends him the horse again, and the debt is doubled.

On a journey through the settlement, some travelers visited one of their cabins, and found father, mother, and child, squatted, gipsy-like, within, there being no table, chair, or stool to render it comfortable. In one corner slept a young woman, having before her bed a couple of pieces of bark to serve as curtains, while on other parts of the floor slept four male travelers. A rain storm came on, and the rain beat through the log walls till we were all nearly ankle deep in water. Plash, plash through this went the child, about four years old, to light her mother's pipe at the chimney. Having returned with the pipe, she began quietly to nurse at her mother's breast; and after a short meal from this source, she cried for the pipe, which was filled and lighted for her. After smoking heartily, the child passed the pipe to her father, by whom it was passed to the mother, and from the mother back to the little girl, who still filled up the intervals by nursing. Meanwhile the lady with the bark curtains was supplied with a pipe before she got up and dressed.

CALIFORNIA AND THE MINES.

A part of California was discovered as early as 1542, by a Spaniard named Cabrillo; and its northern section was visited for the first time by foreigners in 1578, when Sir Francis Drake, then at the head of an expedition from England, gave to this region the name of New Albion. The Spaniards planted colonies upon its sea coast in 1768, from which period, until 1836, the territory was a province of Mexico. In the latter year a revolution occurred. The people, after having frequently compelled the Mexican governors and other officials to abandon their posts, declared themselves independent, and undertook to organize new political institutions. Several weak and ineffectual attempts to regain absolute control were made from time to time by the Mexicans, until the year 1846. In July of that year the port of Monterey, a central point on the Pacific coast of the State, was seized, in the name of the United States, by a naval force under Commodore Sloat, who at once unfurled the American flag, and established a provisional government. At that epoch, the administration of the affairs of the territory was in the hands of a civil governor and a military commandant, both natives of California, but holding commissions from the President of Mexico. In 1848 the discovery of a gold "placer" at Columa, (Sutter's Mills,) and the ascertained reality of its extraordinary richness, followed immediately by further and equally surprising developments, startled the whole civilized world, and a tide of emigration began to flow in from every quarter, with a rapidity and volume unparalleled in the history of nations. The population forthwith attained the required number for the formation of a distinct state. The inhabitants prepared and submitted to Congress the draught of a constitution; and in September, 1850, California was admitted into full membership as one of the United States.

By the constitution, adopted by the people in November, 1849, and by the act of Congress consequent thereon, the limits of California are established as follows: Commencing at latitude 42° north, and longitude 20° west; thence running south on said line of longitude till it intersects the 39^{th} degree of north latitude; thence, in a direct course south-easterly, to the river Colorado; thence down the channel of said river to the boundary between Mexico and the United States; thence along said boundary to the Pacific Ocean, and into the same three English miles; thence northwesterly, in the direction of the Pacific coast, to the original parallel of 42° ; and, finally, along this line to the point of beginning. It lies between 32° and 42° north latitude; and its extremes of longitude, owing to its angular position, embrace an extent of about 10° —its eastern point being at $114^{\circ} 30'$ and the western at $124^{\circ} 30'$, although the average distance of the eastern boundary from the sea-coast, and, consequently, the average breadth of the State is about 212 miles. Its length from north to south is 764 miles; estimated area, 188,500 square miles. It is bounded north by the territory of Oregon, east by that of Utah, south by Lower California, and west by the Pacific Ocean.

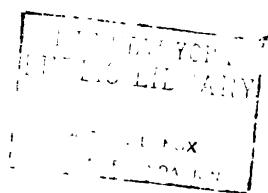
The waters of California partake of those varied peculiarities which mark its terrene surface and its atmospheric properties. The sea and its numerous contiguous bays and estuaries, the inland lakes, the rivers and their countless tributaries, are all subjects of speculative interest. They yield abundantly almost every description of fish found in like latitudes, besides many kinds which are either unknown or not common in other regions. Some of the rivers are navigable many miles from their mouths; others flow over precipices and ledges, constituting falls or rapids, which the industry of man may hereafter convert into valuable mill sites. The sea-shores are prolific in marine plants, which, at some future day, will doubtless be applied to useful purposes. Immense quantities of kelp are thrown up by the waves—an article that now forms the most available material for the manufacture of iodine, and is also excellent as a compost for arid soils, like those of this State. Lichens, in all their variety, spring profusely from the rocky strand along its entire extent, which, like the mosses of Iceland, will undoubtedly, in due time, be much prized for their nutritive and medicinal properties. The coasts and inland water-courses swarm with wild fowl, some of which resemble the aquatic birds found on the eastern shores of the continent, and others seem peculiar to the tracts which they inhabit. The principal rivers, communicating with the Pacific, are the Sacramento and San Joaquin. These flow through almost the whole length of the great valley between the Sierra Nevada and the coast range of mountains, the former taking its rise in the north and the latter in the south, and both, uniting near the centre of the State, pass into the noble Bay of San Francisco, whence they reach the sea. They are fed in their course by great numbers of mountain streams from the western slopes of Sierra Nevada. Other important rivers, though of less considerable extent, intersect the State in various directions.

There is nearly, if not quite, as great a diversity of climate in California as of its geological features. The coast and its neighborhood are

enveloped in cold mists, borne on the northwest winds, which prevail during most of the summer or dry season, with occasional intervals of more pleasant weather. At San Francisco, although the temperature frequently varies some 80° in a single day, it is said that the mean temperature, in both winter and summer, is nearly equal. Other positions on the coast are more or less affected by the chilly winds and fogs from the point above indicated, in proportion to their relative geographical situations, the line of coast at the southern part of the state being less directly influenced by those causes than that at the northern. In the winter or rainy season the prevailing winds are from the southwest, rendering the temperature much milder than in the same latitudes on the Atlantic side of the continent. Farther inland, beyond the first range of mountains, the climate assumes a very different phase. The sea winds of the spring, summer, and early autumn having deposited their freight of moisture upon the summits of the intercepting highlands, (the "Cordilleras of California,") pass gently into the great valley of the Sacramento, carrying a grateful softness, with scarcely a remaining vapor to obscure the brightness of the skies. Proceeding still onward in an easterly direction, these prevailing winds climb the flanks of the lofty Sierra Nevada, and, on reaching its elevated peaks, are deprived by condensation of all watery particles that may yet linger among them. Thence they pass down into the broad basin, spreading eastward to an immense extent, with occasional mountainous interruptions. Here another change of climate is perceptible; the air is exceedingly dry and hot throughout more than half the year, and the earth suffers accordingly. These variations occur sometimes within the distance of a few miles, corresponding generally with the abrupt changes observable upon the face of the country. A most delightful climate pervades the numerous valleys on the land side of the mountains, where they are protected from the rude ocean blasts. Near the western border of the Sacramento valley, the extremes of temperature, between winter and summer, are very great, comprehending some 80° Fahrenheit, viz., from 30° to 110°. A degree of heat almost as excessive as the last indicated is often felt in various parts of the mountain region; but this is here so peculiarly modified as to produce none of those injurious effects upon animal life which result from similar temperatures elsewhere. The rainy season, sometimes termed the winter, commences at the north in October or November, and progresses slowly to the south, reaching the centre of the State in December, and the southern boundary in January. The season has an average duration of about three months, but is longer and more pluvius at the north than at the south. The effect of all these atmospheric mutations upon human health must naturally be diverse, and not always congenial. The subject, however, has not yet been sufficiently investigated and analyzed to enable one to treat with accuracy upon the relations between those phenomena and the diseases incident to the localities where they respectively exist. That great scourge of modern times, the cholera, has visited some of the most populous settlements in the State; and other epidemics occur at different seasons, similar in character to those which visit other parts of the world exposed to like vicissitudes and agencies.



EMIGRANTS CROSSING THE MISSISSIPPI ON THE RAIL.



The face of the country presents, perhaps, a greater variety of topographical features than may be found in any one territory of like magnitude upon the whole earth. Several ranges of huge and lofty mountains—many of their peaks of volcanic origin, ascending into the region of perpetual snow—extend through the central parts, and parallel with the sea coast of the State, from its northern nearly to its southern extremity. On the coast side of these ridges, as well as between them, the surface is greatly diversified, presenting many varieties of soil, thin and sandy in some localities, but in others abounding in the richest loam. Among the hilly regions, there are numerous valleys and plateaus, of different elevations, covered with a soil of good quality, which, wherever duly watered, is capable of being rendered highly productive. But these are frequently interspersed with large tracts of rough, broken, and apparently sterile territory, or intersected by deep and rocky ravines. Until within a very short period, the entire country, with the exception of a few widely separated spots, exhibited all the harsh and rugged characteristics of a yet unredeemed wilderness.

The elevated lands, at certain seasons, are usually either denuded of vegetation, or partially overspread with stunted trees and herbage. But in places that are sheltered, and having facilities for irrigation, fruits and garden vegetables grow luxuriantly. Though few agricultural experiments on a large scale have yet been made, enough has been ascertained to show that the resources of the State, in this respect, may be advantageously developed. Indeed, it is known that most of the cereal grains can be produced in quantities abundantly adequate to the wants of a numerous population. In most parts of the country the vine, fig, olive, and other valuable plants, both of the temperate and torrid zones, may be cultivated with great success. Springs of water abound in many districts, while in others the earth, for leagues together, exposes a naked and arid surface, which is only relieved by the periodical rains. Some few extensive forests, comprising, occasionally, trees of enormous magnitude, were met with by recent United States exploring parties; but large portions of the territory are very scantily wooded. This absence of trees, and the consequent want of moisture and of shelter to the earth from the sun's heat, is doubtless a grand obstacle in the way of agricultural improvement; and years will probably elapse before any great measure of public attention will be directed to the subject. Among the forest trees most common in California are the oak, ash, beech, birch, elm, plane, red cedar, and pine of almost every description.* These abound more profusely near the Pacific shore, and in the vicinity of rivers communicating with that ocean, thus affording excellent opportunities for ship-building.

The gold region of California is between 400 and 500 miles long, and from 40 to 50 miles broad, following the line of the Sierra Nevada

* Timber is scattered over several counties, and is quite abundant around Bodaga, San Rafael, Sonoma, Santa Cruz, and a few other localities. The red wood, or soft cedar, is most frequently met with in those quarters. It often grows to the circumference of forty feet, and to a height of three hundred. Near Santa Cruz there is one measuring seventeen feet in diameter.

Further discoveries may, and probably will, increase the area. It embraces within its limits those extensive ranges of hills which rise on the eastern border of the plain of the Sacramento and San Joaquin, and, extending eastwardly from 50 to 60 miles, they attain an elevation of about 4000 feet, and terminate at the base of the main ridge of the Sierra Nevada. There are numerous streams which have their sources in the springs of the Sierra, and receive the water from its melting snows, and that which falls in rain during the wet season. These streams form rivers, which have cut their channels through the ranges of foot hills westwardly to the plain, and disembogue into the Sacramento and San Joaquin. These rivers are from ten to fifteen, and probably some of them twenty miles apart. The principal formation or substratum in these hills is talcose slate; the superstratum, sometimes penetrating to a great depth, is quartz; this, however, does not cover the entire face of the country, but extends in large bodies in various directions—is found in masses and small fragments on the surface, and seen along the ravines and in the mountains overhanging the rivers, and in the hill sides in its original beds. It crops out in the valleys and on the tops of the hills, and forms a striking feature of the entire country over which it extends. From innumerable evidences and indications it has come to be the universally admitted opinion among the miners and intelligent men who have examined this region, that the gold, whether in detached particles and pieces, or in veins, was created in combination with the quartz. Gold is not found on the surface of the country, presenting the appearance of having been thrown up and scattered in all directions by volcanic action. It is only found in particular localities, and attended by peculiar circumstances and indications. It is found in the bars and shoals of the rivers, in ravines, and in what are called the “dry diggings.” The rivers, in forming their channels, or breaking their way through the hills, have come in contact with the quartz containing the gold veins, and by constant attrition cut the gold into fine flakes and dust; and it is found among the sand and gravel of their beds at those places where the swiftness of the current reduces it, in the dry season, to the narrowest possible limits, and where a wide margin is consequently left on each side, over which the water rushes, during the wet season, with great force. As the velocity of some streams is greater than that of others, so is the gold found in fine or coarse particles, apparently corresponding to the degree of attrition to which it has been exposed. The water from the hills and upper valleys, in finding its way to the rivers, has cut deep ravines, and, wherever it has come in contact with the quartz, has dissolved or crumbled it in pieces. In the dry season these channels are mostly without water, and gold is found in the beds and margins of many of them in large quantities, but in a much coarser state than in the rivers, owing, undoubtedly, to the moderate flow and temporary continuance of the current, which has reduced it to smooth shapes, not unlike pebbles, but has not had sufficient force to cut it into flakes or dust. The dry diggings are places where quartz containing gold has cropped out, and been disintegrated, crumbled to fragments, pebbles, and dust, by the action of water and the atmosphere. The gold has been left as it was made, in

all imaginable shapes—in pieces of all sizes, from one grain to several pounds in weight. The evidences that it was created in combination with quartz, are too numerous and striking to admit of doubt or cavil; they are found in combination in large quantities.

A very large proportion of the pieces of gold found in these situations have more or less quartz adhering to them. In many specimens they are so combined that they cannot be separated without reducing the whole mass to powder, and subjecting it to the action of quicksilver. This gold, not having been exposed to the attrition of a strong current of water, retains in a great degree its original conformation. These diggings, in some places, spread over valleys of considerable extent, which have the appearance of an alluvion formed by washing from the adjoining hills, of decomposed quartz, and slate earth, and vegetable matter. In addition to these facts, it is beyond doubt true that several vein-mines have been discovered in the quartz, from which numerous specimens have been taken, showing the minute connection between the gold and the rock, and indicating a value hitherto unknown in gold mining. These veins do not present the appearance of places where gold may have been lodged by some violent eruption. It is combined with the quartz in all imaginable forms and degrees of richness. The rivers present very striking, and it would seem conclusive evidence respecting the quantity of gold remaining undiscovered in the quartz veins. It is not probable that the gold in the dry diggings and that in the rivers—the former in lumps, the latter in dust—were created by different processes. That which is found in the rivers has undoubtedly been cut or worn from the veins in the rock, with which their currents have come in contact. All of them appear to be equally rich. This is shown by the fact that a laboring man may collect nearly as much in one river as he can in another. They intersect and cut through the gold region, running from east to west, at irregular distances of fifteen to twenty, and perhaps some of them thirty miles apart. Hence it appears that the gold veins are equally rich in all parts of that most remarkable section of country. Were it wanting, there are further proofs of this in the ravines and dry diggings, which uniformly confirm what nature so plainly shows in the river.

To the energy, talent, and enterprise of the Hon. John Charles Frémont we stand indebted for the most important discoveries and surveys of the western territory of the United States, since the great expedition of Lewis and Clarke. The first field of his public services was the country around the head waters of the Mississippi, in the survey of which he acted as an assistant. After receiving the commission of a lieutenant in the corps of topographical engineers, he undertook an expedition, in 1842, under the instructions of government, to examine the country between the Missouri frontier and the Great South Pass, in the Rocky Mountains.

On the 10th of June, the party, consisting of twenty-five men, most of whom were Canadian and Creole *voyageurs*, set out from a post ten miles above the mouth of the Kansas River. The celebrated Christopher Carson (known as Kit Carson) officiated as guide. Eight mule carts, loaded

with instruments and baggage, with a few spare horses and four oxen for provision, were the only encumbrances; the whole party, with the exception of the cart drivers, were well armed and mounted. After crossing the Kansas, the party took up their line of march over the prairie in a northwesterly direction to the Platte River, which was reached on the 26th, at a distance of more than 300 miles from the point of departure. They followed the course of the South Fork to Fort St. Vrain, at the foot of the Rocky Mountains, where they arrived on the 10th of July. Many interesting descriptions are recorded of the Indians encountered on the route: among other incidents, a spirited account is given of a buffalo hunt by a party of Arapahoes, whose village, on the Platte, was passed upon the 8th. As soon as they were conscious of danger, in the words of the narrative, "the buffalo started for the hills, but were intercepted and driven back towards the river, broken and running in every direction. The clouds of dust soon covered the whole scene, preventing us from having any but an occasional view. * * * At every instant through the clouds of dust which the sun made luminous, we could see for a moment two or three buffalo dashing along, and close behind them an Indian with his long spear, or other weapon, and instantly again they disappeared."

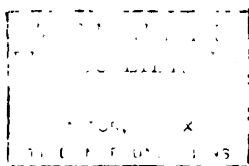
Frémont with his little company reached the South Pass about the middle of August, and commenced scientific explorations of the rugged mountain district through which it leads. "He not only fixed the locality and character of that great pass, through which myriads are now pressing to California, but defined the astronomy, geography, botany, geology, meteorology, of the country, and designated the route since followed, and the points from which the flag of the Union is now flying from a chain of wilderness fortresses. His report was printed by the Senate, and translated into foreign languages, and the scientific world looked on Frémont as one of its benefactors."*

The expedition of 1843-4 was far more extensive, interesting, and important than the one which preceded it. Its object was "to connect the reconnoissance of 1842 with the surveys of Commander Wilkes on the coast of the Pacific Ocean, so as to give a connected survey of the interior of our continent." In entering upon this arduous undertaking, Colonel Frémont determined to attempt a new route over the Rocky Mountains, southward of the main pass, in hopes of discovering an easier thoroughfare to Oregon and California. On the 29th of May, with a company of thirty-nine men, many of whom had accompanied him in 1842, he set out from the former point of departure. A detour through the mountains brought them upon the waters of the Bear River, which they followed to its debouchment into Great Salt Lake. In a frail boat of inflated India rubber cloth, a partial survey was effected of this remarkable phenomena of nature, concerning which the only knowledge before obtained had been from the wild reports of the Indians and hunters who had occasionally visited it. Little did the adventurous explorers

* Lester in the "Gallery of Illustrious Americans"



SALOON, SAN FRANCISCO.



dream of the change that a few years would bring about upon those remote and desolate shores. The party left their camp by the lake on the 12th of September, and, proceeding northward, reached the plains of the Columbia on the 18th, "in sight of the famous 'Three Buttes,' a well-known landmark in the country, distant about forty-five miles."

In the month of November, having reached Fort Vancouver, and fully accomplished the duties assigned him, Colonel Frémont set out on his return by a new and dangerous route. Nothing but a perusal of the journal of the expedition can convey an adequate idea of the dangers and difficulties attendant upon the remainder of this enterprise, in which the complete circuit was made of that immense and unexplored basin lying between the Sierra Nevada and the Wahsatch or Bear River range of the Rocky Mountains; a region thus laid down in Frémont's chart: "The Great Basin: diameter 11° of latitude: elevation above the sea, between 4000 and 5000 feet: surrounded by lofty mountains: contents almost unknown, but believed to be filled with rivers and lakes which have no communication with the sea, desert and oases which have never been explored, and savage tribes which no traveler has seen or described."

The following synopsis of the narrative of Frémont's return from the Pacific to the States is from the pen of the popular author before cited: "It was the beginning of winter. Without resources, adequate supplies, or even a guide, and with only twenty-five companions, he turned his face once more towards the Rocky Mountains. Then began that wonderful expedition, filled with romance, achievement, daring, and suffering, in which he was lost from the world nine months, traversing 3500 miles in sight of eternal snow; in which he explored and revealed the grand features of Alta California, its great basin, the Sierra Nevada, the valleys of San Joaquin and Sacramento, exploded the fabulous Buenaventura, revealed the real El Dorado, and established the geography of the western part of this continent."

The account of the terrible passage of the Sierra Nevada in the months of February and March, is one of the most thrilling narratives ever recorded of heroic endurance over every conceivable difficulty. The ascent was commenced on the 2d of February; the Indian guide "shook his head as he pointed to the icy pinnacles, shooting high up into the sky," and opposing an apparently insuperable barrier to further progress. After weeks of toil and suffering, subsisting upon their mules and horses, for whom it was almost impossible to procure sufficient grass and herbage to support life, the party descended the western slope of the Sierra. Two of the men had lost their reason from suffering and anxiety: one of them, Derosier, who had staid behind for the purpose of bringing a favorite horse of Colonel Frémont, on rejoining the party, in the words of the narrative, "came in, and sitting down by the fire, began to tell us where he had been. He imagined he had been gone several days, and thought we were still at the camp where he had left us; and we were pained to see that his mind was deranged. * * * The times were severe when stout men lost their minds from extremity of suffering—when horses diéd—and when mules and horses,

ready to die of starvation, were killed for food. Yet there was no murmuring or hesitation."

"In August, 1844, Colonel Frémont was again in Washington, after an absence of sixteen months. His report put the seal to the fame of the young explorer. He was planning a third expedition while writing a history of the second; and before its publication, in 1845, he was again on his way to the Pacific, collecting his mountain comrades, to examine in detail the Asiatic slope of the North American continent, which resulted in giving a volume of new science to the world, and California to the United States."*

The events immediately succeeding, although highly interesting, as connected with the most important particulars in the political history of the United States, are beyond our limits to record. It is sufficient to state, that throughout the difficulties in which Colonel Frémont was involved, and the lengthened examination to which he was subjected before a court-martial, the sympathies of the public were generally enlisted in his behalf.

As a private citizen, he contemplated yet another survey of a southern route through the western territory to California, and we cannot sufficiently admire the ardor and self-reliance with which he entered upon the undertaking, after such fearful experience of the dangers attendant on attempting an unknown passage of the great mountain ranges which must be crossed. To resume the remarks of Mr. Lester: "Again he appeared on the far west: his old mountaineers flocked around him; and, with thirty-three men and one hundred and thirty mules, perfectly equipped, he started for the Pacific.

"On the Sierra Juan all his mules and a third of his men perished in a more than Russian cold; and Frémont arrived on foot at Santa Fé, stripped of every thing but life. It was a moment for the last pang of despair which breaks the heart, or the moral heroism which conquers fate itself.

"The men of the wilderness knew Frémont; they refitted his expedition; he started again, pierced the country of the fierce and remorseless Apaches; met, awed, or defeated savage tribes; and in a hundred days from Santa Fé he stood on the glittering banks of the Sacramento." In the new state where he took up his abode, his popularity and prosperity have been unsurpassed.

DESCRIPTION OF THE COUNTRY LYING BETWEEN MISSOURI AND CALIFORNIA.

The proposition for a Railroad to the Pacific has been before Congress for several sessions. In January, 1855, the Hon. THOS. H. BENTON made a speech in the House of Representatives upon the subject,

* Gallery of Illustrious Americans.

advocating the great central route for the location of the road. The following extract from his speech is valuable, as a *description of the physical features of the country between Missouri and California* on the great emigrant route, and its adaptation to settlement. After noticing other proposed railroad routes, Mr. Benton said :

"I make no comparison of routes, but vindicate the one I prefer from erroneous imputations, and invite rigorous examination into its character. The belt of country, about 4° wide, extending from Missouri to California, and of which the parallels 38 and 39 would be about the centre, this belt would be the region for the road ; and of this region, its physical geography and adaptation to settlement, and to the construction of the road, it is my intention to speak, and to publish, as a part of this speech, something of what I have spoken elsewhere, but do not now repeat, because unnecessary here, but essential to the full exposition of the subject in the prepared and published speech.

I have paid some attention to this geography, induced by a local position and some turn for geographical inquiry ; and, in a period of more than thirty years, have collected whatever information was to be obtained from the reading of books, the reports of travelers, and the conversation of hunters and traders, and all with a view to a practical application. I have studied the country with a view to results, and feel authorized to believe, from all that I have learned, that this vast region is capable of sustaining populous communities, and exalting them to wealth and power ; that the line of great States which now stretch half way across our continent in the same latitudes—Pennsylvania, Ohio, Indiana, Illinois, Missouri—may be matched by an equal number of States, equally great, between Missouri and California ; and that the country is perfectly adapted to the construction of a railroad, and all sorts of roads, traversable in all seasons. This is my opinion, and I proceed to verify it : and first, of the five States, their diagrams and relative positions ; and then their capabilities.

The present Territory of Kansas, extending 700 miles in length, upon 200 in breadth, and containing above 100,000 square miles, would form two states of above 50,000 square miles each. A section of the Rocky Mountains, embracing the Three Parks, and the head-waters of the South Platte, the Arkansas, Del Norte, and the eastern branches of the Great Colorado of the West, would form another State, larger—in the opinion of Frémont—than all the Swiss cantons put together, and presenting every thing grand and beautiful that is to be found in Switzerland, without its draw-backs of avalanches and glaciers. The valley of the Upper Colorado, from the western base of the Rocky Mountains to the eastern base of the Wahsatch and Anterria ranges, 200 miles wide by 200 long, and now a part of Utah, might form the fourth ; and the remainder of Utah, from the Wahsatch to California, would form the fifth, of which the part this way, covering the Santa Olara meadows, and the Wahsatch and Anterria ranges, would be the brightest part. Here, then, are five diagrams of territory, sufficient in extent, as any map will show, to form five States of the first magnitude. That much is demonstrated. Now for their capabilities to sustain populous communities, and their adaptation to the construction of a railroad.

We begin with the Territory of Kansas, and find its length above three times its breadth, and naturally divisible into two States by a north and south line, half way to the mountains. The eastern half is beginning to be known from the reports of emigrants and explorers; but to understand its whole interior, the general outline of the whole territory must first be traced, in the mind's eye or upon a map. Maps are not convenient in so large an assemblage; so the mind's eye must be put in requisition, and made to follow the lines as indicated, thus: beginning on the western boundary of Missouri, in the latitude of 37° , and following that parallel west to the eastern boundary of New Mexico; then a deflection of one degree north to the parallel of 38° ; and on that parallel to the summit of the Rocky Mountains; then northwardly along that summit to the parallel of 40° ; then east with that parallel to the Missouri line; and south with that line to the beginning. This is the outline; now for the interior; and for the sake of distinctness, we will examine that by sections, conformable to the natural divisions of the country.

I. We commence with the Kansas river, on the north side of the Territory, and its four long forks—the Smoky Hill, the Saline, Solomon's and the Republican; of which the Smoky Hill is the most considerable, and in the best place for the advantage of the Territory. All these forks flow in the right direction—from west to east—and are beautifully parallel to each other, without mountains or ridges between to interrupt their communications, and making, after their junction, near 200 miles of steamboat navigation before their united waters reach the great Missouri river. All the land drained by these streams constitute the valley of Kansas, if the term *valley* can be applied to a region which has but little perceptible depression below the general level of the country. We will consider the term applicable to all the territory drained by all the Kansas forks and all their tributaries. One general description applies to the whole—the soil rich like Egypt, and tempting as Egypt would be if raised above the slimy flood, waved into gentle undulations, variegated with groves and meadows, sprinkled with springs, coursed by streams, and warmed by a sun which warms without burning, and blessed with the alternation of seasons which give vigor to the mind and body. Egypt thus raised up and changed might stand for Kansas; as she is, the only point of comparison is in the soil. For this valley is high and clean, diversified with wood and prairie, watered by springs and streams, grassy and flowery; its bosom filled with stone for building, coal for fuel, and iron for the home supply of that first of metals. This is the Kansas of the northern, or Kansas river side, where Frémont says—and he has a right to know—a continuous cornfield 200 miles in length might be made, so rich and level is the country. But of this part it is not necessary to say much, as the crowds of emigrants are directing themselves upon it, and vying with each other in the glowing descriptions which they give of its beauty, salubrity, and fertility.

I turn to the south side of the territory, of which little has been said, and much is to be told, and all profitable to be known. In the first place, this south side includes the whole body of the Arkansas River, from

near the Missouri line to its headmost spring in the Rocky Mountains—a length of above seven hundred miles on a straight line, and near double that length in the meanders of the stream. This gives to the territory a second large river, and in the right place, and flowing in the right direction, and parallel to the other, as if its twin sister, and so near together as to be seldom more than a degree, and sometimes not half a degree from each other, and no mountains or high grounds between them. This, of itself, is a great advantage to the territory, for the Arkansas, like all rivers in the prairie country, brings fertile borders, and groves of wood, and rich grass, and makes an attractive line for settlement and travel. In the next place, it gives a succession of tributaries on each side—each giving lines of wood and water—the only things wanted for settlement and cultivation. Some of these tributaries are of great length, and drain wide areas—as the Neosho, drawing its expanded head waters from the centre of the territory, two hundred miles long, and becoming navigable before it reaches the Arkansas River. The Verdigris is but little less than the Neosho, and next above it, and of the same characteristics, and both adapted to cultivation and pasturage. On the opposite side, coming in from the south, is the Salt Fork of the Arkansas, the lower part of it within the limits of Kansas, with its salt plains and rock salt, impregnating the river, and rendering its waters undrinkable in the dry season. I have seen parcels of this rock salt at St. Louis, cut off with hatchets by the Indians, and of the blown salt, swept up by the squaws with turkey-wing fans when the autumnal sun had evaporated the briny waters of the saline marshes—all so useless now in the hands of the Indians, and to become so valuable in the hands of the whites. Ascending the river, there is a continued succession of affluents from each side, all exercising their fertilizing powers upon bordering lines of wood, soil, and grass, and becoming better to the very base of the mountains. So that the river advantages on the north side of the territory are rivaled by similar advantages on the south side.

I have spoken of the two sides of the territory; now for the centre—and that is soon dispatched; an expanded prairie, level to the view, rich in soil, scant (but not destitute) of water, green with grass, and enlivened in the proper season with myriads of buffaloes, spreads illimitably before the eyes of the traveler. Some springs, many small streams, numerous pools, peculiar to these plains, (reservoirs of the rains,) invaluable for stock, furnish the present supply, to be helped out by wells as soon as settled. The annual, autumnal, devastating fires being stoppeed, the indigenous forest growth will immediately come forth, accompanied by the exotics which the thrifty farmer will lose no time to introduce. Coal will furnish fuel; so that the whole central plain will receive settler from the beginning, and especially on the line of road actually traveled, and where the railroad may be expected to be. In the mean time the settler has an attraction—superior with many, and profitable as well as pleasant in itself—to draw him into this vast plain. It is the pastoral pursuit; for this is the bucolic region of our America—now the resort of wild animals, and soon to become the home of the domestic. A short, sweet grass, equally nutritious in the green or dried state, (for it

dries of itself on the ground,) covers the face of the earth, inviting all ruminating animals to take their food upon it, without measure, and without stint; a great pastoral region, in which the ox will not know his master's crib, nor the ass the hand that feedeth him, but in which the dumb, unconscious beast, without knowing it, will feel the bounty of the hand which is the Giver of all good.

This is the description of the first Kansas—the one which will go half way to the mountains—equal in territorial extent to the first class states, exceeded in productive capacity by none—and soon to become one of the great states of the Union. I will call it East Kansas.

II. The second state would occupy the remainder of the territory to the base of the Rocky Mountains, and, like the first half, will have the natural division into three parts, and with the same characteristics, but with a reversal of their localities. The Arkansas River side will be far the most valuable, both intrinsically and in its locality; but the Kansas side will still have its value and attraction. Frémont says of it, "The soil of all this country (Upper Kansas and base of the mountains) is excellent, admirably adapted to agricultural purposes, and would support a large agricultural and pastoral population." He says it is watered by many streams, but without wood, except on their borders; that grass abounds, and among its varieties, the *esparcette*, a species of clover so valuable for the pasturage of swine, cultivated for that purpose in Germany, but indigenous in all this base of the mountains.

But the valley of the Upper Arkansas would form the pride and strength of the upper state—West Kansas, as I will call it, including, as the territory does, a part of the superb valley of San Luis, and the beautiful Sawatch, which forms a continuation of it, and which leads to the famous Coochatope pass.

Frémont thus speaks of this upper part of the Arkansas, as seen by him in his various expeditions, and especially in the one of the last winter:

"The immediate valley of the Upper Arkansas, for about two hundred miles, as you approach the mountains, is continuously well adapted to settlements, as well as to roads. Numerous well-watered and fertile valleys, broad and level, open up among the mountains, which present themselves in detached blocks, (outliers,) gradually closing in around the heads of the streams, but leaving open approaches to the central ridges. The whole of the inter-mountain region is abundant in grasses, wood, coal, and fertile soil. The pueblos above Bent's Fort prove it to be well adapted to the grains and vegetables common to the latitude, including Indian corn, which ripens well, and to the support of healthy stock, which increase well, and take care of themselves summer and winter."

Of the climate and winter season in this elevated region he thus speaks:

"The climate is mild and the winters short, the autumn usually having its full length of bright open weather, without snow, which in winter falls rarely and passes off quickly. In this belt of country lying along the mountains the snow falls more early and much more thinly than in the open plains to the eastward: the storms congregate about the high

mountains, and leave the valleys free. In the beginning of December we found yet no snow on the Huerfano River, and were informed by an old resident, then engaged in establishing a farm at the mouth of this stream, that snow seldom fell there, and that cattle were left in the range all the winter through."

This was the first of December. Eight days later, and when advanced a hundred miles farther, and standing in the Sandhill Pass of the Sierra Blanca, which looks both into the head valleys of the Del Norte and of the Arkansas, he still writes :

"On the 8th of December we found this whole country free from snow, and Daguerre views, taken at this time, show the grass entirely uncovered in the passes."

This is the winter view of this country and its climate, and certainly no mountain region could present anything more desirable for man or beast. A summer view of it is given by Messrs. Beal & Heap, in their central route journey to California, in 1853, thus :

"Upon reaching the summit of the *buttes*, a magnificent and extensive panorama opened to our view. The horizon was bounded to the north by Pike's Peak — to the west and northwest by the Sierra Mohada, (Wet Mountain,) Sangre de Christo Mountains, and the Spanish Peaks; to the south and east extended the prairie — lost in the hazy distance. On the gently undulating plains, reaching to the foot of the Rocky Mountains, could be traced, by their lines of timber, the course of the Arkansas River and its various tributaries — among them the Huerfano, (Orphan River,) easily distinguished from the remote point (nearly due west) where it issued from the Sierra Blanca, to its junction with the Arkansas, except at short intervals where it passed through canyons in the plain. Pike's Peak was a prominent object in the landscape, its head capped with eternal snow, soaring high above all the neighboring summits. The river (Huerfano) bottom was broad, and thickly wooded with willows and cottonwood, interlaced with wild rose and grape vines, and carpeted with soft grass — a sylvan paradise. The scenery, as we approached the country between the Spanish Peaks and the Sierra Mohada, was picturesque and beautiful. Mountains towered high above us, the summits of some covered with snow, (July,) while the dense forests of dark pines which clothed their sides contrasted well with the glittering white at the top, and the light green of the soft grass at their base. The humidity of the Sierra Mohada gives great fertility to this region; and the country bordering on the sides of the mountains, as well as the valleys in their recesses, are unequalled in loveliness and richness of vegetation. To the settler they offer every inducement; and I have no doubt in a few years this tract of country will vie with California or Australia in the number of emigrants it will invite. It is by far the most beautiful part of New Mexico, (now a part of Kansas,) and a remarkably level country connects it with the western part of the Atlantic States. As soon as this is thrown open to settlement a continuous line of farms will be established, by which the agricultural and mineral wealth of the country will be developed."

Mr. Charles M'Clanahan, a Virginia emigrant to California, and a

large dealer in stock to that country, writing back to me from the valley of San Luis in August, 1853, says :

"On this route almost the entire way may be settled, as all the land from Missouri to Bent's Fort is rich, and very fertile, equal to the best lands of Missouri and Illinois, and no land can beat the Sierra Blanca for grass. Even to the very summit it stands as thick as the best meadows, and many acres would mow at least four tons to the acre. Then comes the large and beautiful valley of San Luis, said to be one of the most fertile in New Mexico. Indeed, fine land is upon the whole route, and the climate is such that the stock can live out all the winter upon the grass. On this route there is an abundance of grass and water, so much so that the stock will travel and keep fat. A very large majority of our sheep are as fat mutton as any in the Philadelphia or Baltimore market; and a very large number of Mr. Barnwell's cattle are fine beef, and I have never seen any stock, after traveling so far, look half so well."

Mr. Leroux, in his published letter to me, describing, among other things, the valley of San Luis, which lies east of the Coochatope Pass, and leads to it through the Sahwatch Valley, and which valley of San Luis is now partly in Kansas, says :

"There is a large valley to the east, about fifty or sixty miles wide, and near one hundred miles long, reaching from the Coochatope to the Taos settlements at the little Colorado. The Del Norte runs through this valley, which is the widest and best valley in all New Mexico, and can hold more people than all New Mexico besides. It is all prairie except on the creeks, and on the river, and on the mountain sides, which are well wooded. It is a rich soil, and covered with good grass, and wooded on all the streams. The Spaniards called it El Valle de San Luis, and it was formerly famous for wild horses and buffaloes; and ever since Taos was settled by the Spaniards, the inhabitants drove their sheep and cattle there to winter. Before the Utah Indians became so bad, the stock, as many as fifty or sixty thousand head of sheep and cattle, had been driven there to winter, which they did well, feeding on grass during the day, and sheltering in the woods about the shepherds' camp at night. Most of the winters there is no snow along the foot of the mountain on the north side of this valley, being sheltered from the north, and open to the sun to the south. The United States have established a military post in this valley, not far from the pass of El Sangre de Christo, and about two hundred families have gone there to live, chiefly near the fort, and raised crops there last year; and now that they have protection, the valley will soon be all settled, and will be the biggest and the best part of New Mexico. About three hundred families were preparing to move there. The post is called Fort Massachusetts."

This is the Western or Upper Kansas, and will make another great State, and both will quickly be ripe for admission into the Union. They will both be settled with unexampled rapidity. In agriculture and grazing alone they present irresistible attractions to the settler. But it is not agricultural and pastoral advantages alone, great as they are, which are to attract people to this region; other causes are to add their inducements to the same attractions, and render them invincible. At the head

of these other causes stands the preëmption law, now engrafted as a permanent feature in the federal land system, and made applicable to all the public lands in the territory. By virtue of this law the laboring man, without a dollar in his pocket, is put ahead of the speculator with his thousands. He may choose for himself out of the wide domain, mark out his choice, take possession, work it, and raise enough out of it or on it to pay the government price by the time the pay is demandable, with the good prospect to see it rise to ten or twenty times as much as it cost within a few years. This is a chance for a freehold, and of provision for a family, which the wise and industrious tiller of the earth will not neglect. Then come the political advantages. The act of Congress creating the territory gives great political rights to unnaturalized settlers coming into it. It gives the elective franchise, and eligibility to office, upon the simple declaration of an intention to become a citizen of the United States, and taking the requisite oaths. This is an advantage which the foreign emigrant will know how to appreciate and to appropriate. Then comes an advantage of a different kind still, novel but energetic, and already in full operation—the competition for excess of settlers between the free and the slave States. That competition, though deplorable in its political and social aspect, must have one good effect upon the territory—that of rapidly filling it with people, the only point of view in which I refer to it. Finally comes a fourth cause in this extra list for attracting settlers—one that must have its effect upon all who can reason from cause to effect, who can look ahead and see what is to happen by seeing what exists, who can estimate the force of natural causes, which are self-acting and irresistible, and which work out their results without the directing and helping hand of government. It is the Pacific Railroad! Kansas has the charter from nature for that road, and will use it. She has the smooth way on which to place it, the straight way on which to run it, the material with which to build it, the soil and people to support it, and the salubrious climate to give it exemption from disease; and she has in her southwest quarter, precisely where the straight line requires them to be, the multiplied gates which open the mountains to the Pacific, the Coochatope, the Carnero, the San Juan, the Poonche, the Medio, the Mosca, the Sangre de Christo, the Utah. These passes, and the rich, grand, and beautiful country in which they lie, command a road, and will have it; and the preëmptioner who acquires a quarter section on its line may consider his fortune made.

Now I think I have provided for two of the five States which I have promised, and that within the brief space of one and two years, and each upon a larger population than has ever yet been required from other new States. Now let us proceed to the other three, and let us dispatch them in less time than these two have required.

III. We take a section of the Rocky Mountains, from 37° to 41° —near three hundred miles north and south—and go down to the base on each side, say a hundred miles or more each way, making an area of sixty thousand square miles, while all the Swiss cantons have not twenty thousand. Here, then, is territory enough for a great mountain State. Now let us look to its contents and capabilities. First, there are the Three

Parks first described by Frémont, and since laid down on all the maps—large, beautiful, mountain coves, two of them of thirty miles' diameter each, the other of sixty—at a great elevation, delightful in summer, and tempered in winter, from the concentration of the sun's rays, and sheltered by the lofty rim of mountains, forever crowned with snow, which wall them in and break off the outside storms. The name is not fanciful, nor bestowed capriciously by travelers, but a real description, translated from the Indian name of these parks, which signifies "cow lodge," and not without reason, for the buffaloes not only feed but lodge there, and make them the places of their numerous congregation, attended by all the minor animals—elk, deer, antelopes, bears. Then the innumerable little valleys in which rise the myriad of young streams which, collecting into creeks, go off to start upon their long courses in the mighty rivers which, there rising together, go off in opposite directions, some to the rising, some to the setting sun; the South Platte, the Arkansas, the Del Norte on one side; and the Great Colorado of the West on the other—all four born so near together to run so far apart, a point of similitude to Switzerland which the instructed mind will not fail to perceive, and also to discover another similitude in Pike's Peak, grand in its elevation, forever luminous in its mantle of snow—the Mont Blanc of the Rocky Mountains, which no adventurous Packard or De Saussure has ever yet climbed. Then an endless labyrinth of little valleys and coves, where wild animals luxuriate in summer and shelter in winter, and where the Indians pursue their game in all seasons without impediment from cold or snow, and where their horses do well on the grass, retaining much of its moisture and nutriment. Frémont thus describes the general winter condition of these valleys:

"Our progress in this mountainous region was necessarily slow; and during ten days which it occupied us to pass through about one hundred miles of the mountainous country bordering the eastern side of the Upper Colorado valley, the greatest depth of the snow was (among the pines and aspens on the ridges) about two and a half feet, and in the valleys about six inches. The atmosphere is too cold and dry for much snow; and the valleys, protected by the mountains, are comparatively free from it, and warm. We here found villages of Utah Indians in their wintering ground, in little valleys along the foot of the higher mountains, and bordering the more open country of the Colorado valley. Snow was here (December 25) only a few inches deep—the grass generally appearing above it, and there being none under trees and on southern hill sides. The horses of the Utahs were living on the range, and, notwithstanding that they were used in hunting, were in excellent condition. One which we had occasion to kill for food had on it about two inches of fat, being in as good order as any buffalo we had killed in November on the eastern plains. Over this valley country—about one hundred and fifty miles across—the Indians informed us that snow falls only a few inches in depth, such as we saw it at the time."

This is the winter condition of these little valleys, very comfortable for man and beast, even in their wild state, and to become more comfortable under the hand of cultivation. The summer view, as presented by

Mesa. Beale and Heap, is absolutely enchanting—a perfect labyrinth of valleys, with their cool water and sweet grass; some wide, some narrow; some bounded by perpendicular walls of rock, like streets in a city; others by softly-rounded hills; some studded with small circular mountains, called by the hunters “round mountains,”—fertile on the sides, level and rich on the top, diversified with wood and prairie, and refreshed with clear streams, and beautified with deep, limpid, miniature lakes. These descriptions are charming, but too numerous for quotation, and I can only give a specimen of each:

“The trail led over low hills and down a succession of beautiful slopes, running mostly in a southern direction, until we entered a narrow, winding valley, two miles and a half in length, by one and two hundred yards in breadth. It was shut in on each side by perpendicular walls of rock, rising from fifty to seventy-five feet above the level of the valley, whose surface was flat and carpeted with tender grass. A stream of clear water meandered through its centre, and the grade was so slight, that the stream, overflowing in many places, moistened the whole surface. As we descended this beautiful and singular valley, we occasionally passed others of a similar character. It ends in Sah-watch valley, which we entered about one hour before sunset.” “The valleys down which we traveled, and which opened into each other with the regularity of streets, grew gradually broader as we descended. We finally entered one watered by Carnero (Sheep) Creek, which joins the Garita (Gate) Creek in San Luis valley, and at noon encamped a short distance above a gait or gap through which the stream passes, (and whence it derives its name.) Half a mile below this gap there is another, and a quarter of a mile farther a third. The passage through them is level, while the trail around them is steep and stony. In the afternoon we went through the first gap, made a circuit around the second, as it was much obstructed with rees and bushes, and, leaving the third on the left, rode over some low hills, and five miles from camp crossed the Garita. We were once more in San Luis valley, and all before us was a perfect level as far as the sight could reach.” “Our way, for a mile or two, led over a barren plain, thickly covered with grice wood, but we soon struck the base of the mountain, where firm, rich mountain grass swept our saddle girths as we entered over it. We crossed a considerable mountain covered with timber and grass, and near the summit of which was quite a cluster of small, but very clear and apparently deep lakes. They were not more than an acre or two in size, and some not even that, but surrounded by luxuriant grass, and perched away upon the mountain, with fine timber near them. It was the most beautiful scenery in the world. It formed quite a hunter’s paradise, for deer and elk bounded off from us as we approached, and then stood within rifle shot, looking back in astonishment. A few hours’ ride brought us to the Indian camp; and I wish I here could describe the beauty of the charming valley in which they camped. It was small, probably not more than five miles wide by fifteen long, but rounded on all sides by the boldest mountains, covered to their summits with alternate patches of timber and grass, giving it the appearance of having been regularly laid off in small farms. Through the centre a

fine bold stream, three feet deep by forty wide, watered the meadow land, and gave the last touch which the valley required to make it the most beautiful I had ever seen." "Hundreds of horses and goats were feeding on the meadows and hill side; and the Indian lodges, with the women and children standing in front of them to look at the approaching stranger, strongly reminded me of old patriarchal times, when flocks and herds made the wealth and happiness of the people, and a hut was as good as a palace. I was conducted to the lodge of the chief—an old and infirm man, who welcomed me kindly, and told me his young men told him that I had given of my small store to them, and to 'sit in peace.' In about fifteen minutes a squaw brought in two large platters, containing some very fat deer meat, and some boiled corn, to which I did ample justice; and when about to leave, found a large bag of dried meat, and a peck of corn put up for me to take to my people." "This morning I explored the mountain lying to the south of our camp, forming a picturesque portion of our front view. After ascending the mountain and reaching the summit, I found it a vast plateau of rolling prairie land, covered with the most beautiful grass, and heavily timbered. At some places the growth of timber would be so dense as to render riding through it impossible without great difficulty; while at others it would break into beautiful open glades, leaving spots of a hundred acres or more of open prairie, with groups of trees, looking precisely as if some wealthy planter had amused himself by planting them expressly to beautify his grounds. Springs were abundant, and small streams intersected the whole plateau. In fact, it was an immense natural park, already stocked with deer and elk, and only requiring a fence to make it an estate for a king. Directly opposite to the south is another mountain, in every respect similar; and a valley, more beautiful to me than either, lies between them."

Enough for a sample; and if any thing more is wanted to establish the character of this mountain region for fertility of soil and attraction for man, it is found in its character of hunting and of war ground. Frémont says he found it the most variously and numerous stocked with game, and the most dangerous war ground, which he had seen in all the extent of the Rocky Mountains—both indexes to a fertile country. The country sought for by animals and fought for by men is always a good country. Western men will understand this, and remember how Kentucky was called the "Bloody Ground," because Indians came there to hunt the numerous game, feeding on the rich grass, product of her rich soil, and to fight for its possession. By this test—and it is one which never fails—our Mountain State will be one of eminent fertility.

We Americans are in the habit of referring to Europe for a point of comparison for every thing we wish to praise in our own country, although our own may be far superior; therefore I compare this Mountain State to Switzerland, although it is disparaged in the comparison. Its valleys are more numerous and beautiful—its mountains less rugged and more fertile—its surface more inhabitable—its climate more mild and equally as salubrious—more accessible by roads; the mule every where sure of its feet, the carriage of its wheel, and the hunter at liberty to pursue his game without fear of slipping into a bottomless icy chasm, betrayed by

a treacherous covering of snow. Its little round mountains, with their grassy sides and rich level tops, and natural parks, and miniature lakes, and sweet flowing waters, have no parallel in Switzerland, or in any other part of the world. And upon this view of their relative advantages I am ready to adopt the opinion of Frémont, and to go beyond it and to celebrate this Mountain State as being as much superior to Switzerland in adaptation to settlement as it would be in extent; and to crown its recommendations, just half way to the Pacific, and on the straight line.

IV. The valley of the Upper Colorado would furnish the territory for the fourth State, one hundred and fifty miles wide from the western base of the Rocky Mountains to the eastern base of the Wahsatch and Anterior ranges, and three or four hundred in length, up and down the river. The face of the country is high and rolling, with alternations of woodland prairie, and open to roads and settlement in any direction. The soil, like much of that on the Rio del Norte and in Southern California, is peculiar and deceptive—looking thin and sandy to the eye, but having an element of fertility in it which water impregnates, and enables to send forth a vigorous vegetation. All it wants, and that only in places, is irrigation; and for this purpose, and for all purposes, there is water enough; for this valley is probably the best watered region in the world, and is obliged to be so from the configuration and structure of the country. The valley is formed by the lofty ranges of the Rocky and Wahsatch Mountains, which, wide apart at its lower end, converge as they go north, and unite above latitude forty-two—giving to the long and broad valley they enclose the form of the Greek letter delta, or of our V inverted. The summits of these mountains are covered with eternal snows—their sides with annual winter snows; and these latter, beginning to melt early in the spring, and continuing till midsummer, fill the earth with moisture, and give rise to myriads of springs, creeks, and small rivers, which collect into the two forks of the Colorado, called by the hunters Green and Grand Rivers, and, in their junction, constitute the great river itself; for the country below, being sterile and arid, contributes but little to swell the volume of the great river which traverses it. The climate in this valley is mild—the month of January being like autumn to us. We owe this knowledge to the last winter expedition of Frémont, who says, “The immediate valley of the Upper Colorado, for about one hundred miles in breadth, and from the 7th to the 21st of January, was entirely bare of snow, and the weather resembled autumn with us.” Coal abounds in this valley, cropping out in thick strata in the bluffs of Grand River, (the east fork of the Great Colorado,) and a saline creek thirty miles long, and formed by salt springs, falls into the same fork from the north; and both the coal and the salt are in the line of the contemplated road to the Pacific. This would be the fourth State—equal in extent to any, inferior in soil, superior in wood and water, softer in climate, better in due alternations of woodland and prairie; and being part of the Utah Territory, it is now under the dominion of law and government, and open to immediate settlement, which, in fact, is now going on.

V. The fifth State would consist of the remainder of the Utah Territory, beginning at the eastern base of the Wahsatch and Anterria ranges, and extending 300 miles to the California line, upon whatever breadth might be desired. It would include, towards its eastern border the Little Salt Lake, which is 260 miles south of the Great Salt Lake and which designates a country as much superior to that of the Great Salt Lake as itself is inferior to that large and marvelous body of salt water. It would be a magnificent state; its eastern limit, there the rim of the Great Basin, would embrace the broad expanse of the Wahsatch and Anterria ranges, or rather blocks, as they are cut up into short sections—probably the richest mountain region in the world, where Nature has crowded and accumulated into a hundred miles square, as into a vast magazine, a profusion of her most valuable gifts to man. Soil, water, grass, wood, timber, rock salt, coal, stone, a due alternation of mountain and valley—the former cut into blocks, white on the top with snow, dark on the sides with forests, and their bosoms filled with ores; the valleys green with grass, fresh with cool water, opening into each other by narrow level gaps, or defiles; the climate so soft that animals live out all the winter, and February (so frosty and frozen with us) the usual month for starting the plow: I say starting the plow; for the Mormons, since several years, have seen the beauty of this region, and have come upon it. We owe to Frémont's last winter expedition the revelation to public view of this magnificent region, more valuable than all the golden mines of California and Australia put together. He had seen these ranges in his previous expeditions, and given them a page in his journal, and a place in his map; but it was not until his last expedition that he penetrated their recesses, and saw their hidden treasures. He was fourteen days in them, (from the 24th of January to the 7th of February,) and thus speaks of what he saw:

"They lie between the Colorado valley and the Great Basin; and at their western base are established the Mormon settlements of Parowan and Cedar City. They are what are called fertile mountains, abundant in water, wood, and grass, and fertile valleys, offering inducements to settlement and facilities for making a road. These mountains are a great storehouse of materials—timber, iron, coal—which would be of indispensable use in the construction and maintenance of the road, and are solid foundations to build up the future prosperity of the rapidly increasing Utah State. Salt is abundant on the eastern border; mountains—as the *Sierra de Sal*—being named from it. In the ranges lying behind the Mormon settlements, among the mountains through which the line passes, are accumulated a great wealth of iron and coal, and extensive forests of heavy timber. These forests are the largest I am acquainted with in the Rocky Mountains, being, in some places, 20 miles in depth of continuous forests; the general growth lofty and large, frequently over three feet in diameter, and sometimes reaching five feet, the red spruce and yellow pine predominating. At the actual southern extremity of the Mormon settlements, consisting of the two enclosed towns of Parowan and Cedar City, near to which our line passed, a coal mine has been opened for about 80 yards, and iron works already estab-

lashed. Iron here occurs in extraordinary masses, in some parts accumulated into mountains, which comb out in crests of solid iron, 30 feet thick and 100 yards long."

Frémont brought home specimens of this coal and iron, of which Professor Baird, of the Smithsonian Institution, has made the analysis; and which I give in his own words: "Magnetic oxide of iron: Parowan. Seems a very pure ore of iron, and suitable for manufacturing purposes. May be estimated to contain about 70 or 71 per centum of metallic iron somewhat similar to the ore in the great beds of Northern New York, but more solid than is usual there. Probably very well adapted to the manufacture of steel. The coal appears to be of excellent quality—semi-bituminous—somewhat in appearance like the transition coal of the Susquehannah mines in Pennsylvania."

I must ask the pardon of some of my auditors for supposing that they may not be better acquainted with the language of geology than I was myself, when I supposed that this "combing out of the solid iron in crests" was mere descriptive language, suggested by the taste of the writer. I found it was not so, but the technical phraseology, which the geological science required to be used, and which, being used, conveyed an exact meaning—that of a mineral showing itself above the surface, and crowning the top of the hill or mountain as a crest does the helmet, and the comb the head of the cock. In this view of its meaning, the language here used by Frémont, and which seems to have been the suggestion of an excited imagination, becomes the subdued expression of science and technicality. And what a picture he presents! What profusion and variety of God's best gifts to man! Here are, in fact, the elements of a great state—enough of themselves to build up a rich and populous state; but appurtenant to it, and interlaced with it, or bordering upon it, is a great extent of valley country—that of the Little Salt Lake, of the Santa Clara Meadows, of the Nicollets River, and its tributaries; and a multitude of other coves and valleys, all stretching along the western base of the Wahsatch, and within the rim of the Great Basin; that basin as remarkable here for beauty and fertility as in most other parts for sterility and deformity. The Mormon settlements of Paragoona, Parowan, and Cedar City are along the edge of this rich mountain region; and the well-trod Mormon road from the Great Salt Lake to Southern California, relieved with bridges and marked with mile-stones, pass by these towns; all announcing to the traveler that in the depths of the unknown wilderness he had encountered the comforts of civilization. Messrs. Beale and Heap passed these settlements at mid-summer, and speak in terms of enchantment, not only of the beauty of the country, but of the improvements and cultivation. Pretty towns, built to a pattern, each a square, the sides formed by lines of adobe houses, all facing inwards, with flower and kitchen gardens in front, and a large common field in the rear, crowded with growing grain; and all watered, both fields and gardens, and the front and rear of every house, with clear cool streams, brought down from the mountain sides, and from under a seeming canopy of snow. Grist and saw mills at work; forges smelting the iron ore; colliers digging the coal; black-

smiths hammering the red hot iron into farming implements, or shoes for the horses—assisted by dexterous Indian boys; cattle roaming in rich natural pastures; people quarrying, and the cattle licking, the rock salt. Emigrants obtain supplies here—beef and flour, at moderate prices; and it was here that Frémont was refitted after his 70 days of living upon his mules which died from exhaustion. The number and beauty of these valleys and fertile mountains, seen by Beale and Heap in exuberance, their ripe, rich dress of midsummer, excite their wonder, and call forth enchanting descriptions. Broad valleys, connected by narrow ones—a continued succession of these valleys going from one to another, not by climbing ridges, but through level openings—grass, flowers, and water in each. * The mountains, some circular, some cut into blocks, some with fertile flat tops, rich in vegetation, some with peaks white with snow, and all dark with forests on their sides. It is impossible to read their descriptions without being reminded of Central Persia, and of that valley of Shiraz, celebrated as incomparable by the poets, but matched and surpassed in the recesses of the Wasatch and the Anterria; and the climate delicious in summer, and soft in winter. From the 24th of January to the 8th of February, that Frémont explored this region, he found in the valleys either no snow at all, or a thin covering only; and, in the first week of February, the Mormons told him they had usually commenced plowing, and preparing the ground for the spring seeds. And yet all this would be but a corner of a state, which may spread west and north some hundred miles to the California line, and into the Great Basin—chiefly characterized as a desert, but which has its *oases*—*vegas*, as the Spaniards call them—meadows refreshed with water, green with grass, and arable land, and with a structure of country, narrow valleys between snowy mountains, which give assurance of the artesian wells which can extend the area of fertility, and multiply the points of settlement. So that this fifth state may be as extensive, as populous, and as rich as any public interest could require. Abundant instances are given by Frémont, and by Beale and Heap, to justify this enchanting description of these valleys and *vegas*: too many to cite. One only will be quoted as a specimen. I take it from Frémont's description of one of the *vegas* of Santa Clara; for there are several of them, and they are always cited in the plural—*vegas*, not *vega*. He says:

"We considered ourselves as crossing the rim of the Great Basin; and, entering it at this point, we found an extensive mountain meadow, rich in 'bunch grass,' and fresh with numerous springs of clear water, all refreshing and delightful to look upon. It was, in fact, that *las vegas de Santa Clara*, which had so long been presented to us as the terminating point of the desert, and where the annual caravan, from California to New Mexico, halted and recruited for some weeks. The meadow was about one mile wide and ten long, bordered by grassy hills and mountains—some of the latter rising 2000 feet, and white with snow (May) down to the level of the *vega*. Its elevation above the sea was 5280 feet, and its latitude, by observation, 37° 28' 28". Here we had complete relief from the heat and privations of the desert, (on the old route to Los Angeles.)"

The "*bunch grass*," here spoken of, takes its name from the form in which it grows, which is in bunches—different from the short grass called "*buffalo*," on the east side of the Rocky Mountains—but about equally valuable, being nutritious both in summer and winter, and having a second growth in the fall. It prevails extensively on the Pacific slope of our continent, and is an element of natural wealth in its support of stock. The climate of this region, besides what has been said, may be judged of by the material used for building, even where wood and stone are abundant—*adobes*, or sun-baked bricks. That indicates a climate comparatively dry and mild—more Asiatic than American—reminding us of Nineveh and Babylon. Certainly no houses, built of such material, (with or without straw,) on our side of the continent, could stand the driving of our merciless rains, or resist the action of our freezing winters.

Beale and Heap went through these ranges not only at a different season of the year from Fremont but on a different line; and their description of the pass at the divorce point of the waters between the valley of the Upper Colorado and the Great Basin, and of the valleys of the Anterria and Wahsatch, and of the Mormon settlements, will complete this view of the capabilities of the fifth State. This, then, is what they say:

"On the summit of the 'divide' (*divortia aquarum*) between the waters of the Colorado and the Great Basin, and before descending into the valley of the Rio Salado, an affluent of Sevier (Nicollet) River, I took a careful survey of the surrounding country, which offered many interesting features. The Wahsatch Mountains are composed of several parallel ranges, running north and south, with fine well-watered valleys between them. They are short, and between the valleys are numerous passes. The hills are clothed, from their summits to their base, with a thick growth of pine trees, cedars, and aspens, and the brook was swarming with trout. The 'divide' is broad, level, and smooth, and the descent, on the western side, easy. We encamped, for the night, on the Salado, in a broad and level valley. Throughout the mountains the grass reminded us of that of the Sahwatch range, although in the valley it was less luxuriant. We were now in the Great Basin, and near the Mormon settlements; and, directing our course west, we came again to the Salado, at the place where it flows past the mines of rock salt, from which it derives its name. The course of the creek is here south-west, and it joins Nicollet River about three miles below the mines. At the mines we found a Mormon trail, which our guide told us led to their settlements, about 20 miles distant. Following up Sevier (Nicollet) River, four miles brought us to beautiful meadows, grass luxuriant, reaching above the saddle girths. Crossing Nicollet River, we passed over a steep hill; we descended in another valley, watered by the same stream, having missed the Mormon road which led into it. This valley lies north and south, and unsurpassed in beauty and fertility by any thing we had yet seen. It is about thirty miles in length by four in breadth, surrounded by mountains, down whose sides trickled numberless cool and limpid brooks, fringed with willow and cotton-wood. Nicollet River

flows through its centre, and it abounds, in its entire length, in rich pasturage. The mountains which enclose it were clothed, from summit to base, with oaks and pines. At the head of the valley, and through a canon (canyon) comes in the Rio San Pasquall—the main fork of the Nicollet, and which itself flows through a valley of great beauty.

“Arrived at Little Salt Lake, (260 miles south of Great Salt Lake,) in the valley of which is the first Mormon town—Paragoona—of about 30 houses, built of *adobes*, (sun-burnt bricks,) presenting a neat and comfortable appearance, but broken up, in the moment of our arrival, by the Utah war, and the inhabitants removed to Parowan. Proceeded to this town over an excellent wagon road, made, and kept in repair, and bridged in many places by the Mormons. We passed a large grist and saw-mill worked by water power. Parowan is in a pretty valley of its own name, and is a town of about 100 houses, (*adobes*,) built in a square and facing inwards. In their rear, and outside of the town, are vegetable gardens, each house having a lot running back about 100 yards. By an excellent system of irrigation, water is brought to the front and rear of each house, and through the centre, and along the outside boundary of each garden lot. The houses are ornamented in front with small flower gardens, which are fenced off from the square, and shaded with trees. The field covers about 400 acres, and was in a high state of cultivation; the wheat and corn being as fine as any we had seen in the states. Several smelting furnaces are at work upon the iron ore in the mountains, coal for the fuel, and all asserted to be abundant and excellent. We had our horses shod here, two Pahutah boys assisting the white blacksmith; and we were surprised to see the skill and dexterity with which they assisted—fully equal to that of our white boys of the same age. Furnaces for smelting iron ore were already in operation in the vicinity of Paragoona and Parowan, and that metal, which was obtained in sufficient quantity to supply any demand, was also of excellent quality, and the veins of coal apparently inexhaustible. A large force of English miners was employed in working these mines, and pronounced the coal to be equal to the best English coal. We saw it in use in the forges—bituminous, and burning with a bright flame. A Pahutah handed me some ears of wheat, the grains of which I preserved, and he stated that it grows spontaneously near the Santa Clara. It is from this stock that the New Mexicans have obtained the seed which they call Pahute wheat, and the Mormons Taos wheat, and which has been much improved by cultivation, and is considered the best in New Mexico and Utah.”

I commenced this speech with undertaking to establish two propositions; *first*, that the country between Missouri and California, in the latitude in which we now stand, is well adapted to settlement and cultivation, and capable of forming five great States; *secondly*, that it is well adapted to the construction of a railway. I believe I have made good the first of these propositions, and that we may now assume that the line of great states which now extend nearly half way across this continent, and through the centre of this Union—Pennsylvania, Ohio, Indiana, Illinois and Missouri—may be continued, and matched, by an

equal number of states, equally great, between Missouri and California. I consider that proposition established, and say no more about it. The establishment of the second proposition results from the establishment of the first one, as all that has been shown in favor of the country for settlement and cultivation is equally in favor of it for the road. But I have some direct and positive testimony on this head, which the importance of the subject, and the value of the testimony itself, requires to be produced. I speak of the last expedition of Colonel Frémont—his winter expedition of 1853 and 1854—and of the success which attended it, and of the value of the information which it afforded. He chose the dead of winter for his exploration, that he might see the worst—see the real difficulties, and determine whether they could be vanquished. He believed in the practicability of the road, and that his miscarriage in 1848-9 was the fault of his guide, not of the country; and he was determined to solve those questions by the test of actual experiment.

With these views he set out, taking the winter for his time, the west for his course, a straight line his object, the mouth of Kansas for his point of departure, St. Louis and San Francisco the points to be connected. The parallels of 38 and 39 covered his course; and between these he continued to move west until he reached the Little Salt Lake, within 300 miles of the California line; after that upon a slight deflection to the south, between the parallels 37 and 38, until he entered California. This may be called a straight line, and so fulfills a primary condition of every kind of road, and especially of a railroad, where a speed of a hundred miles an hour may be as easily attained, and as safely run, as the third of that velocity in a road of crooks and curves.

Snow was the next consideration; and of that he found none on any part of the route, to impede any kind of traveling. On the Kansas, the Upper Arkansas, and the Huerfano, he found none at all; in the Sand Hill pass of the Sierra Blanca, none; in the valleys of San Luis, and the Sahwatch, none; in the Coochatope pass, four inches; and none if he had crossed the day before; and that was the 14th of December, corresponding with the time, and almost in view of the place where he had been buried in the snows five years before—and would have been again if he had gone to the same place. This solved the question of snow in the passes of the mountains, and showed that his miscarriage had been the mistake of the guide, and not the fault of the country. After that—after crossing the Rocky Mountains—the climate changes. A great amelioration takes place, which he knew before, and then fully experienced. The remainder of the route, as has been shown in the view of the country, may be said to have been found free from snow—a hundred miles at a time in one place without finding any; and when found at all, both thin and transient; and all so light and dry as to clog nothing, nor damp the moccasin in a day's travel. And that this was the common winter state of the pass, and not an occasional exception, has been shown by Mr. Antoine Leroux, and others, and corresponded with his own theory of snow in the passes. Mr. Leroux, in his published letter to me, said, "There is not much snow in this pass, (the Coochatop.) and people go through it all the winter. And when there is much snow on

the mountains on the Abiquiu route, (which is the old Spanish trail from Santa Fe to California,) the people of Taos go round this way, and get into that trail in the forks of the Grand and Green rivers." And Messrs. Beale and Heap, in their journal, say of it, "Coochatope pass is traveled at all seasons, and some of our men had repeatedly gone through it in the middle of winter, without meeting any serious obstruction from snows." And this was the theory of Frémont, that the passes in these mountains were nearly free from snow, and comparatively warm; while in the open plains, or on the mountain summits, deep snows would prevail, and a killing cold, which no animal life could stand. This frees the Rocky Mountains from that objection. The next range of mountains (for all the valleys have been shown to be free) is the Anterria and Wahsatch; and there again the passes are free. Frémont says of them:

"In passing through this bed of mountains about fourteen days had been occupied, from January 24th to February 7th; the deepest snows we here encountered being about up to the saddle-skirts, or four feet; this occurring only in occasional drifts in the passes on northern exposures, and in the small mountain flats hemmed in by woods and hills. In the valley it was sometimes a few inches deep, and as often none at all. On our arrival at the Mormon settlements, February 8th, we found it a few inches deep, and were there informed that the winter had been unusually long-continued and severe, the thermometer having been as low as 17° below zero, and more snow having fallen than in all the previous winters together since the establishment of the colony. At this season their farmers had been usually occupied with their plows, preparing the land for seed."

The Sierra Nevada was the last range of mountains; and there not a particle of snow was found in the pass which he traversed, while the mountain itself was deeply covered. And this disposes of the objection of snow on this route, so formidable in the imagination of those who have nothing but an imaginary view of it.

Smoothness of surface, or freedom from abrupt inequalities in the ground, is the next consideration; and here the reality exceeded the expectation, and challenges incredulity. Let Frémont speak. He says

"Standing immediately at the mouth of Sand Hill Pass—one of the most practicable in the Sierra Blanca, and above those usually traveled—at one of the remotest head springs of the Huerfano river, the eye of the traveler follows down, without obstruction or abrupt descent, along the gradual slope of the valley to the great plains which reach the Missouri. The straight river and the open valley form, with the plains beyond, one great slope, without a hill to break the line of sight, or obstruct the course of the road. On either side of this line hills slope easily to the river, with lines of timber and yellow autumnal grass; and the water which flows smoothly between is not interrupted by a fall in its course to the ocean."

Here is a section of the route above seven hundred miles long—beside more than half the distance to California—in which there is no elevation to arrest the vision—in which you might look down the wide d

ance, if the eyesight was long enough, and see the frontier of Missouri from the mouth of the first pass in the first mountain, being more than half the length of the road. This would do for a start. It would satisfy the call for a fair surface at the commencement. This first pass is called the Sand Hill, or Roubidoux, through which Frémont entered the valley of San Luis; and the way so low and level as to be seen through. And through that valley and its continuation (the Sahwatch) to the Coochatope the ground is so smooth as to present no exception to its level but the natural curvature of the earth. Meeting a man on horseback in this long level of more than a hundred and twenty miles, (counting the entire valleys of San Luis and the Sahwatch,) is like meeting a ship at sea; you see his head first, then his body, then his horse, and at last the ground. The pass itself, as well as the approaches to it, is perfect. Frémont calls it "an open easy wagon way." Beale and Heap say it was a question whether they had passed the dividing point between the eastern and western waters, which could only be answered by referring to the water itself. The pass itself, of which they made a drawing, was grand and beautiful. They say of it, "Lofty mountains, their summits covered with eternal snows, lifted their heads to the clouds; while in our immediate vicinity were softly-rounded hills, clothed with grass and flowers, with rich meadows between; through which numerous rills trickled to join their waters to the Coochatope Creek." But why multiply words to induce conviction when facts are at hand to command it? Facts enough abound to show the facility of this pass, even in a state of nature. More than 40 loaded wagons went through it in the summer of 1853, 20 of them guided by Leroux for Captain Gunnison, the rest by emigrant families without guides. But more than that, the buffaloes have traveled it always—those best of engineers, whose instinct never commits a mistake, and which in their migrations for pasture, shelter, and salt, never fail to find the lowest levels in the mountains, the shallowest fords in the rivers, the richest grass, the best salt licks, the most permanent water, and always take the shortest and best routes between all these points of attraction. These instinctive explorers traverse this pass, and give it their name—*Coochatope* in the Utah language; *Puerto del Cibolos* in the Spanish; which, being rendered into English, signifies the Gate of the Buffaloes. And their bones and horns, strewing the ground, attest their former numerous presence in this locality, before the fire-arms of modern invention had come to their destruction at such a crowded point of rendezvous. This is enough to show that the Rocky Mountains may be passed without crossing a hill—that loaded wagons may cross it at all seasons of the year. This applies to the Coochatope pass, but there are many others, and all good; and it is curious to detect the Latin language in many of their names, put upon them in the Spanish translation of the original Indian. Thus we see *porta* in *puerto* (a gate) constantly recurring, as *Puerto del Cibolos*, *Puerto del Mosca*; in which latter, besides the *porta*, we detect the Latin *musca*, (fly;)
Anglice, the Fly Gate, from the unusual number of these insects which the Indians found in it; *Puerto del Medio*, (medinn) Middle Gate, &c., &c.; and here I recapitulate in order to make an important point clear.

1. From the Missouri frontier to the first pass, in the first mountain, upwards of 700 miles, the way is so smooth and straight that there is no obstruction to the vision. 2. Through that first pass, (the Sand Hill,) eight miles, it is about equally level, but the line of sight broken by the deflection through the mountain. 3. Through the San Luis and Sawatch valleys to the Coochatope pass, about 100 miles, it is equally level and straight; so that from Missouri to the Coochatope, above 800 miles, there is no visible inequality of surface, nor anything to break the line of sight, but the deflection of eight miles through the Sand Hill pass of the Sierra Blanca.

It was the Baron Alexander Von Humboldt that first put it into a book that the buffaloes were the best of civil engineers. He put it into his *Aspects of Nature*; and I afterwards put the same into a senatorial speech, without knowing what he had done; and, true to the facts, we both gave the same examples of leading roads in our America, first traced by the buffaloes, and afterwards followed by the Indian as his war path, by the pioneer white man as his wagon road, and by the engineer as his McAdam or railroad track. Among these examples we both mentioned the buffalo trail from the Holston Salt Springs, in Virginia, to the rich pastures of Kentucky, through the Cumberland Mountain Gap, and said that no other practicable route between these two points had yet been found. In fact, all the country people knew that the buffaloes were right; but in this past summer of 1854 some railroad engineers undertook to find a better and a shorter road between the Salt Springs and the Cumberland Gap. They tried it, got cornered, could get no farther, had to perform that evolution which, in the vernacular of the west, is called "backing out," had to return to the salt works, take the old trail, and follow the buffaloes. This was a confirmation of Humboldt, and a triumph of instinct over science; and we shall claim the benefit of it if any book-taught engineer shall ever have the temerity to dispute the excellence and supremacy of the Coochatope pass.

In a word, there is no difficulty about passes; the only bother is to choose out of so many, all so good, both in themselves and in their approaches. This is enough for the passes. With respect to the whole mountain region, and the facility of going through it, and upon different lines, we have also the evidence of facts, which dispense with speculation and assertion. That region was three times traversed, and on different routes, by Messrs. Beale and Heap in the summer of 1853. It happened thus: when they had reached the east fork of the Great Colorado of the West, and were crossing it, they lost, by the accident of an overturned canoe, their supply of munitions, both for the gun and the mouth, and were forced to send back to the nearest settlement for a further supply. That nearest settlement was Taos, in New Mexico, distant 330 miles, and that distance to be made upon mules, finding their own food, which had already traveled, on the same condition, 1000 miles from the frontier of Missouri, and these mules (thus already traveled long and hard, without other food than the grass afforded) now made the double distance at the rate of forty miles a day, still finding their own food, and on the return, bringing packs on their backs. This performance must

stand for a proof that the whole mountain region between the Upper Colorado and the valley of the Upper Del Norte is well adapted to traveling, and that in a state of nature, and also well supplied with nutritious grass. The experience of Captain Gunnison was to the same effect. His twenty wagons, guided by Leroux, and without the benefit of pioneers to remove obstructions, and making circuits to avoid impediments which a fatigue party should have removed, still made the distance between the Del Norte and the Upper Colorado (300 miles) in 22 days, averaging nearly 15 miles to the day, (and government wagons at that, never known to be in a hurry,) being the usual rate of wagon travel on our country roads, the teams arriving at the Colorado fatter than they had left the Del Norte, and without other food than the grass on the way; and this clears us of the Rocky Mountains, from which to the Little Salt Lake it is all an open, practicable way, not limited to a track, but traversable on any line. Loaded wagons travel it in a state of nature. The valley of the Colorado is either level or rolling; the Wahsatch and Anterria ranges are perforated by incessant valleys, and from the Little Salt Lake to the Great Sierra Nevada, as explored by Frémont last winter, the way is nerly level — a succession of valleys between the mountains, perfectly adapted to artesian wells, and terminated by a superb pass *debouching* into the valleys of San Joaquin. Frémont, referring to previous Indian information, says of it :

“When the point was reached, I found the Indian information fully verified: the mountain suddenly terminated, and broke down into lower grounds, barely above the level of the country, and making numerous openings into the valley of the San Joaquin. I entered into the first which offered, (taking no time to search, as we were entirely out of provisions, and living upon horses,) which led us by an open and almost level hollow 13 miles long to an upland, not steep enough to be called a hill, over into the valley of a small affluent to Kern River, the hollow and the valley making together a way where a wagon would not find any obstruction for forty miles.”

The discovery of this pass was the “crowning mercy” of this adventurous winter expedition. It was the cherished desideratum of the central route. It fulfilled its last condition. It gives nearly a straight line from the Little Salt Lake to the Sierra Nevada, with a good pass into the valley of the San Joaquin. It cuts off the elbow which the old Los Angeles trail makes to the southwest. It avoids the desert on that route. It leaves far to the south those excitable fields of roving sands which infest the New San Diego route — sands which creep, like an army of pis-ants, under a gentle breeze, which bury the traveler who lies down to sleep on them when there is a little wind, unless he rises and shakes himself often during the night; in which no number of horses can leave a track; in which the hillock of to-day is a hole in the ground to-morrow; and which, in high winds, is a driving tempest of silicious particles, very cutting to the eyes and skin, very suffocating to the throat, very dangerous to those who are not tall and swift, and from which man and beast fly for life; and all which West Point science proposes to overcome by a profuse application of federal dollars. All this is avoid-

ed by the short and straight route west from the Little Salt Lake discovered by Frémont in his winter expedition of 1853-'54. And this completes all that is necessary to be shown in favor of the smoothness of the way—its equality of surface throughout the whole line; although it attains a great elevation, and lands you in California, in the rich and settled valley of San Joaquin, proximate to the southern end of the gold mines. Not a tunnel to be made, a mountain to be climbed, a hill to be crossed, a swamp to be seen, or desert or movable sand to be encountered, in the whole distance, and all this equality of surface barometrically determined by Frémont as well as visibly seen by his eye; so that this line for a road, the longest and straightest in the world, is also over the smoothest and most equal surface. For, although a great elevation is attained, it is on a long line, and gradually and imperceptibly, the mere rise of an inclined plane.

Rivers to be passed are obstructions to roads, to be overcome by large applications of skill and means; and here again the central route is most favorable. The entire line is only crossed in its course by the streams in the valley of the Upper Colorado, and those of inconsiderable width, with solid banks, and stone for bridges. On this side of the Rocky Mountains the course of the rivers is parallel to that of the road; the Kansas, the Arkansas, and the Huerfano being all in its line. Beyond the valley of the Colorado, no river at all, only small streams.

Mr. McClanahan, and others whose statements have been given, have attested the supreme excellence of the route for the road from Missouri as far as the San Luis valley, and that upon experiment with wagons, carriages, flocks, and herds. It only remains to produce the same kind of testimony in behalf of the remaining part of the way, from that valley to California; and that testimony is at hand. Mr. R. S. Wootten, of New Mexico, a large dealer in stock to California, and who drove 8000 sheep there in the summer of 1853, thus writes in a letter which he gave responsibly to the public:

"During the last year I have taken a drove of sheep from this place (Taos) to California over the route that Colonel Frémont intended to have gone in the winter of 1848-'49, at the time of his disaster. I made the trip through to California in 90 days, arriving there with my sheep in good order, having passed through some of the finest country I ever saw, and had good camps, and plenty of wood, water, and grass every night during the whole trip. There is now being commenced a settlement on the Arkansas River, at the mouth of the Huerfano, at which emigrants can procure such necessities as they may be in want of, and also at the Mormon settlements at Little Salt Lake. There is also a good ferry at the mouth of the Huerfano, and ferries will also be established during the coming summer on Grand River and Green River, (Upper Colorado.) There is also another great advantage that this route has over a more northern one, as emigrants may leave Missouri as late as the 1st of August, and there is no danger of being stopped by snow. After reaching the great Spanish trail in the valley of Green River, (Upper Colorado,) from thence to California there is never any snow, and the months of October and November are more pleasant to travel, and better for stock, than the summer months."

This is the testimony of experience, of actual experiment, in all the country of the mountains; in all the region from the Rocky Mountains out, supposed by some to be so sterile, so rugged, so savage, so impracticable; proved to be so fine that sheep find camps when they please, and they only make ten miles a day, and fatten upon their travel. And the settlers already commenced settlements all along, and proceeding rapidly. What was one man at the mouth of the Huerfano in 1853, was forty in the spring of 1854, all raising crops. Other settlements skirt the road, as that of 200 families in the valley of San Luis, and the *pueblos* San Carlos, Cuerno Verde, and others above Bent's Fort on the extreme upper Arkansas.

This finishes the testimony which time permits to be now produced in favor of the excellence of the country; in fact, its surpassing beauty and great superiority. It is as full and complete as the law of evidence requires any testimony in such a case to be. Still there may be persons to impugn it, and to cry down the country. That is an old business, as old as Moses and the twelve messengers which he sent from the wilderness of Paran to spy out the promised land, and ten of which made an "evil report" of the country and stirred up the mutiny against Moses which continued forty days, and for the punishment of which the rebellious children were detained forty years in the wilderness. This is what happened to the promised land, and it is not to be expected that the distant and unknown countries of the Great West are to fare better. They also must expect to be evilly reported upon; but truth is powerful and must prevail, even where two stand against ten, as in the question between the messengers of Moses, and still more in the case of multitudes against units, as will be the way in the case of evil reports of this far distant West; especially as the country will stand to vindicate itself and the truth. That is the last and greatest witness, the country itself—work of God—standing where he placed it, exhibiting itself as it is, and ready to cover with shame the faint-hearted wanderers who, to get an excuse to return to the flesh pots of Egypt, are for ever discovering a "lion in the path."

I deem myself justified to develop, with some more detail, but one of the road advantages possessed by this route—an advantage often mentioned, but not sufficiently enforced. It is that of coal, so valuable under every aspect, and so indispensable to railroads when in prairies. It exists in superfluous abundance all along this line. Commencing in those coal fields in the west of Missouri which geologists compute to be of 20,000 square miles' extent, it is found all along the Kansas River, on the Upper Kansas, in the Rocky Mountains, in the valley of the Upper Colorado, at the western base of the Wahsatch and Anterria ranges, thus known at present from its own exhibition of itself, cropping out from the bluffs of rivers and the banks of ravines. How much remains to be discovered when so much shows itself spontaneously? Really, it seems like "carrying coals to Newcastle," to tell of coal on this route.

The proposed central route is intended to be a straight line, turned aside by no obstacle, and seduced from its course by no lateral interest. But it will be a road for the accommodation of the whole broad expanse

of the country, from the Mississippi to the Pacific Ocean. Branches striking out like ribs from the spine, would reach every settlement—Northern Missouri and Iowa from a point on the Upper Kansas, New Mexico from a point on the Upper Arkansas, the Great Salt Lake from a point on the upper valley of the Colorado, and thence on to the mouth of the Columbia, and Los Angeles and Southern California, from a point on the Little Salt Lake and Santa Clara settlements. All these places would be conveniently reached by branch roads, while the great trunk would follow its direct course—best for itself and for them—from Missouri to California, *debouching* at each end into the midst of business populations, and connecting with steamboat navigation and all the state improvements. And its settlement would be magic. The line once indicated, and the enterprising emigrants of our America would flock upon it as pigeons to their roosts, tear open the bosom of the virgin soil, and spring into existence the long line of farms and houses, of towns and villages, of orchards, fields, and gardens, of churches and school-houses, of noisy shops, clattering mills, and thundering forges, and all that civilization affords to enliven the wild domain from the Mississippi to the Pacific; to give protection and employment to the road, and to balance the populous communities in the eastern half of the Union by equal populations on its western half.

In this description of the country I have relied chiefly on Frémont, whose exploration, directed by no authority, connected with no company, swayed by no interest, wholly guided by himself, and solely directed to the public good, would be entitled to credit upon his own report, unsupported by subsidiary evidence; but he has not left the credit of his report to his word alone. He has done besides what no other explorer had done; he has made the country report itself. Besides determining elevations barometrically, and fixing positions astronomically, and measuring objects with a practiced eye; besides all that, he has applied the daguerreotype art to the face of the wild domain, and made it speak for itself. Three hundred of these views illustrate the path of his exploration, and compel every object to stand forth and show itself as it is, or was—mountain, gap, plain, rock, forest, grass, snow, (where there is any,) and naked ground where there is not; all exhibit themselves as they are; for Daguerre has no power to conceal what is visible, or to exhibit what is unseen. If the "wart" is there, he needs no admonition to show it, and could not suppress it. He uses no pencil to substitute fiction for fact, or fancy for memory. He is a machine that works to a pattern, and that pattern the object before him; and in this way has Frémont reproduced the country from the Mississippi to the Pacific, and made it become the reflex of its own features, and the exhibitor of its own face, present and viewable to every beholder; and that nothing may be wanting to complete the information on a subject of such magnitude, he has now gone back to give the finishing look at the west end of the line, which 30,000 miles of wilderness explorations in the last twelve years (all at his own solicitation, and the last half at his own cost) authorize him to believe is the true and good route for the road which is to unite the Atlantic and the Pacific, and to give a new channel to the commerce of Asia.

All the other requisites for the construction and maintenance of a road, and to give it employment when done, have been shown in the view of the country—wood, water, stone, coal, iron; rich soil to build up settlements and cities, to give local business and travel all along its course, as well as at the great terminating points, and to protect it without government troops. Add to this, picturesque scenery and an entire region of unsurpassed salubrity. This quality of the route, salubrity, requires a special notice. Frémont says of it, "It is a healthy route. No diseases of any kind upon it, and the valetudinarian might travel it in his own vehicle, or on horse, or even on foot, for the mere recovery of spirits and restoration of health." This is what Frémont says, and he ought to know, traversing the region as he has done for twelve years, and never having a physician with him, nor losing a man by sickness. And all his mountain comrades, sojourners, of 20, 30, 40 years in this wild domain, report the same thing. Salubrity, then, is one of the eminent recommendatory qualities of the central route. The whole route for the road between the States of Missouri and California is good; not only good, but supremely excellent; and it is helped out at each end by water: lines of transportation, now actually existing, and by railways, projected or in progress. At the Missouri end there is a railway in construction to the line of the State, and steamboat navigation to the mouth of the Kansas, and up that river some hundred miles; at the California end there is the like navigation up the Bay of San Francisco and the San Joaquin River, and a railway projected. And thus this central route would be helped out at once by some 300 miles at each end, connecting it with the great business populations of California and Missouri, at which latter point it would be in central communication with the great business population of the Union.

People now travel it and praise it; buffaloes travel it, and repeat their travel, which is their praise. The federal government only seems to cechew it, and lean to outside routes—one by Canada, which the Canadian provincial parliament appears to be now adopting for its own; and one through old Mexico, which Santa Anna might adopt, if he had any commerce; and upon neither of which is seen a buffalo track, or a voluntary white man's track going to California, where no white man goes to get to California, except under the orders and at the expense of government, and where no buffalo could be made to go, even by the power of the government. That sensible old animal would die before he would be made such a fool of as to be conducted to the Sacramento, or San Joaquin, or San Francisco, via the hyperborean region of Upper Canada and New Caledonia, or via the burning deserts of Sonora and Chihuahua. The central route is the free choice of men and buffaloes, and is good for all sorts of roads, and in all seasons. Its straightness of course will enable the car to more than double its speed, and consequently earn its money in half the time. The smoothness of its course is but little interrupted by its ascents or descents; for they are gradual, and distributed over long distances; and the whole country between the Rocky Mountains and the Sierra Nevada, is at the general level of 5000 feet, the greatest descent being from the Sierra Nevada to the level of the sea; and that may distribute itself for the road over some hundred miles.

And now I hold it to be in order of human events, in the regular progression of human affairs, that the road will be built, and that soon; not by public, but private means, by a company of solid men, asking nothing of Congress but the right of way through the public lands, and fair pay for good service in carrying mails, troops, government officials, and munitions of war. Such an enterprise is worthy of enlightened capitalists, who know how to combine private advantage with public good, and who feel a laudable desire to connect their names with a monumental enterprise more useful than the pursuits of political ambition, more glorious than the conquest of nations, more durable than the pyramids, and which, being finished, is to change the face of the commercial world, and all to the advantage of our America.

The road will be made, and soon, and by individual enterprise. The age is progressive and utilitarian. It abounds with talent seeking employment, and with capital seeking investment. The temptation is irresistible. To reach the golden California, to put the populations of the Atlantic, the Pacific, and the Mississippi Valley into direct communication, to connect Europe and Asia through our America, and to own a road of our own to the East Indies; such is the grandeur of the enterprise, and the time has arrived to begin it. The country is open to settlement, and inviting it, and receiving it. The world is in motion, following the track of the sun to its dip in the western ocean. Westward the torrents of emigration direct their course, and soon the country between Missouri and California is to show the most rapid expansion of the human race that the ages of man have ever beheld. It will all be settled up, and that with magical rapidity; settlements will promote the road, the road will aggrandize the settlements. Soon it will be a line of towns, cities, villages, and farms. And rich will be the man that may own some quarter section on its track, or some squares in the cities which are to grow upon it.

But the road beyond the Mississippi is only the half of the whole; the other half is on this side, and either in progress or completed. Behold your own extended iron ways, departing from this city to go west towards the lakes and the great rivers, to join the great western trunk, now almost finished through Cincinnati, Vincennes, St. Louis, there to find the Pacific road in progress to the western limit of Missouri. Behold the lateral roads from Pennsylvania, New England, New York, all pointing to the west, and converging to the same central track. And behold the diagonal central road of Virginia, to traverse the State from its southeast to its northwest corner, already finished beyond the Blue Ridge, and its advanced pioneers descending the Alleghany Mountain, to arrive at the mouth of Big Sandy, in the very latitude of St. Louis, San Francisco, and Baltimore, and there to join the same great central western trunk. And the Blue Ridge road of South Carolina, bound upon the same destination, and the roads of Georgia, pointing and advancing to the northwest. What is the destiny of all these Atlantic roads, thus pointing to the west, and converging upon the central track, the whole course of which lies through the centre of our Union, and through the centre of its population, wealth, and power, and one end of which points to Canton

and Jeddo, the other to London and Paris—what will those lateral roads become, in addition to their original destination? They will become parts of a system, bringing our Atlantic cities nearer to the Pacific coast than they were to the Blue Ridge and the Ohio in the time of canals and turnpikes. And what then? The great idea of Columbus will be realized, though in a different and a more beneficent form. Eastern Asia is reached by going west, and by a road of which we hold the key; and the channel of Asiatic commerce, which has been shifting its bed from the time of Solomon, and raising up cities and kingdoms wherever it went, (to perish when it left them,) changing its channel for the last time, to become fixed upon its shortest, safest, best, and quickest route, through the heart of our America, and to revive along its course the Tyres, and Sidons, the Balbecs, Palmyras, and Alexandrias, once the seat of commerce and empire, and the ruins of which still attest their former magnificence, and excite the wonder of the Oriental traveler.

This great central trunk road from Baltimore to the mouth of the Kansas, along the parallel of 39° , is already almost finished, and for all the purposes of its continuation from Missouri to California, may be assumed to be now finished; for it will be completely so before any part of the other is ready to join it. It is now complete to the Ohio River, complete to Cincinnati, complete through the State of Ohio; complete half way through Indiana, and the other half in progress; complete half way through Illinois, and the other half in progress; complete (nearly) one-third of the way through Missouri, and all the rest under contract, and under the daily energies of two thousand laborers, led by a most energetic contractor. We may assume, then, the great western trunk road to be finished from Atlantic tide water to the western limit of Missouri; that is to say, half way to the Pacific, and to the commencement of that vast inclined prairie plain which spreads from the Missouri frontier more than half the distance of the remaining half, and which is nearly prepared by the hand of Nature for the immediate reception of the iron rails and their solid foundations. What a temptation for a company to begin the great work, when so much is done to their hand, and so much of the remainder is so easy to be done! and then, how advanced all the Atlantic and Mississippi Valley connections with this great western trunk! On the Atlantic side, from Maine to Georgia, from Bangor, on the Penobscot, in the State of Maine, to the State of Georgia, a man may now go by car to that central trunk in Ohio and Indiana; from the southern shores of the northern lakes he can do the same; from the borders of the southern gulf he can partly do it. Soon all will be complete, and every part of the Atlantic States and of the Mississippi Valley be ready to go into communication with the Pacific Ocean as soon as the trunk is completed from Missouri to California.

Telegraphic lines are ready at both ends. In California they extend over the State, into the valleys of San Joaquin and Sacramento, and would be ready to meet the road at the State line. On this end, the wires now extend to the western limit of Missouri—to the mouth of Kansas—from which point intelligence can now be flashed to every part of the Union; so that, on this central route, there is only a gap to be

filled up to complete these magic communications between the shores of the two great oceans.

This is the object! that road, compared to which, those "Alpian and Flaminian Ways," which have given immortality to their authors, are but as dots to lengthened lines—as sands to mountains—as grains of mustard to the full grown tree. Besides the advantages to our Union in opening direct communication with that golden California, which completes our extended dominion towards the setting sun, and a road to which would be the realization of the Roman idea of annexation, *that no conquest was annexed until reached and pervaded by a road*; besides the obvious advantages, social, political, commercial, of this communication, another transcendental object presents itself! That Oriental commerce which nations have sought for, and fought for, from the time of the Phenicians to the discovery of the Cape of Good Hope—which was carried on over lines so extended—by conveyances so slow and limited—amidst populations so various and barbarous, and which considered the merchant their lawful prey—and up and down rapid rivers, and across strange seas, and through wide and frightful deserts;—and which, under all these perils, burdens, discouragements, converted Asiatic and African cities into seats of wealth and empire—centres of the arts and sciences—while Western Europe was yet barbarian; and some branches of which afterwards lit up Venice, and Genoa, and Florence, and made commercial cities the match for empires, and the wives and daughters of their citizens (in their luxurious, Oriental attire) the admiration and the envy of queens and princesses. All this commerce, and in a deeper and broader stream than the "*merchant princes*" ever saw, is now within our reach! attainable by a road all the way on our own soil, and under our own laws; to be flown over by a vehicle as much superior in speed and capacity to the steamboat as the boat is to the ship, and the ship to the camel. Thank to the progress of the mechanic arts! which are going on continually converting into facilities what stood as obstacles in the way of national communications. To the savage, the sea was an obstacle: mechanic genius, in the invention of the ship, made it a facility. The firm land was what the barbarian wanted: the land became an obstacle to the civilized man, and remained so until the steam car was invented. Now the land becomes the facility again—the preferred element of passage—an admitting a velocity in its steam car which rivals the flight of the carrier pigeon, and a punctuality of arrival which may serve for the adjustment of clocks and watches. To say nothing of its accompaniment—the magnetic telegraph, which flashes intelligence across a continent, and exchanges messages between kingdoms in the twinkling of an eye; as compared to which the flying car degenerates into a lazy, lagging, creeping John Trot of a traveler, arriving with his news after it had become stale with age.

All this commerce, in a stream so much larger, with a domestic road for its track, your own laws to protect it, with conveyances so rapid, and security so complete, lies at your acceptance. That which Jew and Gentile fought for before the age of Christianity, and for which Christians have fought both Jew and Gentile, and fought each other, and with it

Baracen for an ally; all this is now at your acceptance, and by the beneficent process of making a road, which, when made, will be a private fortune, as well as a public benefaction—a facility for individuals as well as for the government. Any other nation, upon half a pretext, would go to war for such a road, and tax unborn generations for its completion. We may have it without war, without tax, without treaty with any nation; and when we make it, all nations must travel it, with our permission, and behave well to receive permission, or fall behind and lose the trade by following the old track; giving us a bond in the use of our road for their peaceable behavior. Twenty-five centuries have fought for the commercial road to India; we have it as a peaceable possession. Shall we use it? or wear out our lives in strife and bitterness, wrangling over a miserable topic of domestic contention, while a glorious prize lies neglected before us? Vasco de Gama—in the discovery of the Cape of Good Hope, and the opening of a new route to India, independent of Mussulman power—eclipsed, in his day, the glory of Columbus, balked in the discovery of his well-divined route by the intervention of a new world. Let us vindicate the glory of Columbus by realizing his divine idea of arriving in the east by going to the west.”

THE MORMONS.



THE PROPHET.

Within the last twenty years, our Republic has been the theatre of a spectacle unparalleled in the history of the world in its general aspect and promised results. Two great migrations of people, from the bosom

of our confederated States to the wilderness of the farther West, have taken place; and two distinct commonwealths, already populous and full of progressive energy, have been founded, and added to our galaxy of united republics.

The motors which impelled these migrations were antipodal in essence, yet equally puissant in their attractive forces and interior energy. These were, *acquisitiveness* and *religious enthusiasm*, two powerful agents in moving the masses, and confined in their manifestations to no particular time, people, or creed. The former, addressing itself to the material nature of man—his to-day—makes him brave and enduring. With these qualities as a basis of action, a vast number of our political kindred have founded a flourishing State upon the far-off coast of the Pacific ocean, and are spreading the sails of trade upon the bosom of that hitherto almost solitary sea, bearing the key to the vast commercial treasures of the Oriental world. The latter, addressing itself to man's spiritual nature—his to-morrow—makes him still more brave and enduring, because the prize to be won lies beyond the events of Time, and is subject to no physical contingencies. Impelled by this higher motive, which has given martyrs to the fury of persecution in all ages, a large number of our political kindred, commingled with a greater host from the British Isles and the European continent, have congregated in fertile valleys among the rugged mountains of the interior of our continent, in the direct pathway from the elder States to the capital of the Pacific commonwealth. The memory of the fiery Past, and the bright visions of the peaceful Future, inspire them with indomitable perseverance and surprising energy; and system, order, and political wisdom have there been wonderfully developed among a heterogeneous mass gathered from many nations, and out of almost every class of common society.

In the midst of the vast solitudes of the Rocky Mountain region, where, twenty years ago, the Utah and the grizzly bear disputed possession, a nation has been born, and a populous city, encircled by broad fields, made richer by the tiller's culture, is full of busy men, plying the implements of almost every industrial pursuit, and is continually sending forth from its swarming hive energetic workers, to found other cities and plant other gardens in Deseret—the land of the Honey Bee. Let us consider the origin and brief history of this wonderful people.

About forty-five years ago, Joseph Smith, an illiterate and not over-scrupulous young man of eighteen years, residing with his parents, near Palmyra, in the interior of the State of New York, attracted the attention of his kindred and neighbors by his pretensions to the character of a favored recipient of direct revelations from the councils of the Most High. For some time his mind had been disturbed by excitements at religious meetings, when, as he asserts, while praying for light and spiritual guidance, two angels appeared to him, and announced that he was the chosen Apostle and Prophet of God, to preach the *true* gospel to the world in its purity and power. A few evenings afterward (September 21, 1823), he was again visited by a heavenly messenger, "whose countenance was as lightning, yet it was pleasing, innocent, and glorious." This personage announced himself as a special messenger from the

Great Throne, to reveal to the chosen Apostle the hidden truths of the Future, and to lead him to the depository of the written records of the lost tribes of Israel—"the progenitors of the American Indians." These records, engraved upon plates of gold, contained not only the history of the long-lost tribes, but also divine instructions pertaining to the promulgation of the true gospel, and vivid prophecies concerning the Millennial era, then about to dawn upon the world. Twice during the night the angel visited the fledgling Seer; and the following morning, while the Chosen was at work in his father's field, the Divine instructor came and bade him go immediately to the "hill of Cumorah,"* and unearth the golden book. The task was easy, for the storms of centuries had removed the soil, and a portion of the stone box in which the plates were secured was visible. In the bottom of the box (which was carefully made air and water tight by cement), were three short pillars, and upon these were laid the sacred oracles of God. Beneath them was a breast-plate, such as the ancients used, and lying upon it were two stones, "clear as crystal, set in two rims of a bow," like a pair of spectacles. These were reputed to be identical with the *Urim* and *Thummim* of the Hebrews, by which things distant or future were made manifest. While the young prophet was gazing upon these sacred objects in wonder and awe, the angel appeared, his interior vision was opened, and heaven with all its glory stood revealed to the mortal. Suddenly the Prince of Darkness and his demon train passed by, and the good and the evil were thus displayed before him. The dark host disappeared, and then the angel, after giving Smith many consoling promises, informed him that "the fullness of time" had not yet arrived when he should receive the plates, and translate the divine records.

For four years the chosen prophet was denied possession of the golden book, yet he was frequently comforted by the presence of the angel. On the morning of the 22d of September, 1827, "the fullness of time" arrived, and Smith received, with wonder and delight, the precious volume. Its leaves were apparently of fine gold, thinner than sheets of vulgar tin, seven by eight inches in size, and covered on both sides with "improved Egyptian" characters, neatly engraved. The leaves were fastened together by three rings, and formed a volume about six inches in thickness. A part of it was sealed, to be opened at a future time; the remainder Smith was directed to translate by the assistance of the enormous crystal spectacles found with the book. During these four years—the chrysalis period of the Anointed, while changing from the mortal grub known as "Joe Smith, the money-digger," to the immortal winged creature of the new revelation, whose element was the skies—he was not an idle dreamer nor ascetic recluse. He wandered up and down the head waters of the Susquehannah, in search of mineral treasures, duping one and swindling another; and finally eloped with and married the

* This hill is about four miles distant from Palmyra, on the east side of the post road leading from that village to Canandaigua, and near the little town of Manchester. The alleged place of deposit of the golden plates is marked by several trees on the western slope of the hill.

daughter of a mortal, an intelligent young lady of New Harmony, Pennsylvania. With his wife he settled down near his father's house, ceased money-digging, and, under the direction of his good angel, opened a far more productive treasure in the "hill of Cumorah."

Money, reputation, and learning were essential in the promulgation of the new gospel. Smith lacked these, and he at once sought for them among his credulous neighbors. His earliest disciples were his father and two brothers, whom the world would willingly believe were accessories in a most unblushing imposture. They immediately spread the wonderful story of the golden book. It was confirmatory of a legend long known to money-diggers in Canada, that a golden Bible was somewhere buried. The credulous among the people of a sparsely populated district listened, wondered, and believed; and a farmer, possessing many acres but little knowledge of the world, became a dupe, and furnished Smith with money to enable him to engage in the holy work of translation. The curious began to ask questions, and Smith was almost daily hard pressed for answers. His natural shrewdness was brought into requisition, and he conceived an admirable method of evasion, and declared that he could divulge nothing except by "special revelation!" This conception, the child of an impostor's necessity, was the germ of the power by which his career was made successful, and by which the chief ruler of the Mormon church now wields an autocratic sceptre. From that time, whatever Smith desired to do, he was sure to have a *special revelation* commanding him to do it. This policy marked his whole career, and such is still the ingenious and potential policy of his successors in the church.

By "special revelation" the farmer was made to contribute his money freely to the work of translating and publishing the sacred book. Common sense sometimes raised doubts in the farmer's mind. He once ventured to ask for proof of the divinity of the book in Smith's possession, and even made a journey to the city of New York with some of the "improved Egyptian" characters, transcribed by Smith on paper, to consult the learned Professor Anthon, of Columbia College. He was assured by that gentleman that all was gross deception, yet the poor man under the influence of the basilisk eye of the special revelator, suppressed his wicked doubts, and piously lent him time and money to the holy work until foreclosures of mortgages upon his farm expelled himself and family from his homestead. Yet piety was not the chief motive. The farmer was a miser, and Smith excited his acquisitiveness to the highest degree by promises of great worldly treasure. He meekly became "a scribe like Baruch for Jeremiah," and wrote the words as the prophet delivered them from behind a screen. The scribe was not allowed to see the sacred plates, for the angel had said that no man but Joseph Smith could look upon them and live! To this day no mortal eyes have rested upon them save those of the great Seer.

When the farmer's money was exhausted, his mission was ended, and Smith procured another scribe, and money from other sources. His disciples now numbered a half dozen. The sacred translations were printed under the title of *The Book of Mormon*, and its divinity was attested

by the six disciples. Among these were Smith's father and two brothers; of the latter Hyrum was the most intelligent, and at the time of his death held a conspicuous place in the Mormon church.

The Book of Mormon professed to contain a history of the ancient inhabitants of America, who were a branch of the house of Israel, of the tribe of Joseph; the present tribes of North American Indians being a remnant. It asserts that the principal nation of them having fallen in battle in the fourth or fifth century of the Christian era, one of their prophets, whose name was Mormon, made an abridgment of their history, prophecies, and doctrine, which he engraved on plates of gold. Being afterward slain, the record fell into the hands of his son, Moroni, who, being hunted by his enemies, was directed to deposit the record safely in the earth, with a promise from God that it should be preserved, and brought to light in the latter days by means of a Gentile nation who should possess the land. The sacred deposit was made about the year 420, on a hill then called Cumorah, where the prophet Smith found it through the ministry of angels, and translated it by inspiration. Such is the belief of the followers of the prophet.

It was evident to the Gentiles that the Book of Mormon was the production of a mind far superior in spirituality and cultivation to those of Smith and his confederates, but was disfigured by ignorant men in endeavoring to adapt it to the purposes of the pretended revelation. For some time its origin was a puzzle to unbelievers, but at length "its sin found it out." The well attested fact was revealed that almost twenty years before, a highly educated clergyman of Cherry Valley, New York, married, and, with his wife, settled at New Salem, Ohio. His health there declined, and he was obliged to cease preaching. At that time the literati were engaged in the discussion of the theory that the North American Indians are descendants of the lost ten tribes of Israel. In the vicinity of New Salem were mounds erected by the ancient inhabitants of the continent. These had excited the curiosity of the invalid clergyman, and together with the discussion then going on, turned his thoughts to the subject of the Aborigines and their early history. He had a lively imagination, and he conceived the idea of writing a sort of religious novel, having that theory for its basis. He devoted the leisure of three years to the preparation of his work, which he entitled *The Manuscript Found*. It was written in the quaint style of the Scriptures, to give it the antique character claimed for it. In it *Mormon* and *Moroni* figured conspicuously. It was claimed to have been translated from a record made by one of the lost nation, and to have been recovered from the earth, where it was hidden by *Moroni*, the son of *Mormon*. In this manuscript, completed about the year 1813, was given most of the pretended history found in the *Book of Mormon*. The writer read many chapters to his wife and neighbors, and thus he beguiled the tedious hours of ill-health in the production of a work purely imaginative.

The appearance of the *Book of Mormon* awakened the memory of those who had heard chapters of *The Manuscript Found* read by the author. Among those was his wife, then a widow, and her testimony went forth to refute the imposture. It is clear and explicit; is corrob-

orated by others, and is believed by all except the dupes of the prophet. The undoubted possession of this manuscript by Smith and his co-workers is as clearly proven as the strongest circumstantial evidence can establish a fact. The interpolations by hands guided by ignorant minds are every where visible in the *Book of Mormon*, and that "Bible of the Latter Days," upon which the faith of almost two hundred thousand souls is at this day grounded, is unquestionably the joint production of a pious heart and highly imaginative mind, innocent of all wrong, and of scheming men who became possessed of the fiction long after the pure spirit of its author had gone to its rest in

"The bosom of his Father and his God."

With great boldness and indomitable perseverance, Smith pressed forward in his scheme for establishing a new church upon the earth, with himself its founder and head. Promises of spiritual and temporal benefit were commingled in his doctrines, revealed from time to time, and his preaching soon began to show fruit. Men of character and cultivation became his disciples. On the 6th of April, 1830, they were organized at Manchester, Ontario county, New York, under the title of "Church of Jesus Christ of Latter Day Saints," and in June following their first conference was held, when Smith found himself at the head of a visible church of about thirty people. This was the grain of mustard seed now become a large and flourishing shrub.

Persecution began with the first organization of the Mormon church. A dam cast across a stream of water by Smith, for baptismal purposes, was destroyed by some of the people in the vicinity, and the prophet was boldly charged with robbery, swindling, and lying, and was menaced with personal injury. With the cunning of a shrewd tactician, Smith meekly acknowledged his past sins, plead his repentance, and called God to witness his present purity of life. This disarmed violence, if not opposition. Yet the future appeared lowering, and from that time the eyes of the "Saints" were turned toward the more generous soil of the West. Oliver Cowdrey, a schoolmaster, and Sidney Rigdon, and Parly B. Pratt, ready writers and fluent speakers, who had been preaching heterodoxy in Pennsylvania and Ohio, had embraced the Mormon faith, and soon arrangements were made to plant the church on the borders of the Western wilderness. In January, 1831, a revelation was made, commanding the Saints to emigrate to Kirtland, Ohio, where Pratt and Rigdon had already gathered over a thousand converts to receive them. Great rejoicings were had on the arrival of the prophet, and the meetings of the Saints exhibited some of the wildest phases of fanaticism. Intelligence of the new wonder spread abroad, and from all the lake country, a hundred miles distant, people flocked to see and hear the novelty. The infection spread, and many of the illiterate backwoodsmen illustrated the line,

"Those who came to scoff, remained to pray."

A new revelation was given. A command went forth to plant the new Jerusalem, where Christ was to reign with his saints, a temporal King.



SMITH PREACHING IN THE WILDERNESS.

deeper in the wilderness. Cowdrey explored the forests and prairies beyond the Mississippi, and made reports of the beauty and fertility of the country, as glowing as those of the Hebrew spies from among the grape-vines of Eschol. Smith and a few friends started for the land of promise. Leaving St. Louis, they penetrated the wilderness on foot to Independence, in Jackson county, Missouri, three hundred miles distant. They were charmed with the climate and the scene, and near Independence Smith chose the spot for building Zion. It was designated by a special revelation, and he immediately set about the great work. He preached fervidly to crowds of Indians, squatters, and negroes, some of whom became converts. He laid out the area for the great temple and dedicated the spot to the Lord. He established a bishop there, and after a sojourn of three weeks departed for Kirtland, accompanied by ten Elders of the church.

Kirtland was made a "Stake" or support of Zion, and it was resolved to remain there five years, until the temple in the wilderness should be built. A bank was established, with Smith for president, and Rigdon, cashier. The chief men were also partners in a mill and store, and soon the whole of the Prophet's family were raised from poverty to affluence. Joseph continued to preach in various parts of the country, proselyting and procuring money from his dupes for the ostensible purpose of building the Temple and the City of Zion. The preaching and the practice of the Saints did not always agree, and they fell into disrepute with their neighbors. Feuds arose in the body of the church, because "common men" pretended to receive revelations from God. Their meetings were often disturbed by the "Gentiles;" and on one occasion, in mid-winter the Prophet was dragged from his bed, at a little village called Hiram where he was residing, and after being severely handled, was tarred and feathered. Rigdon was in the same village, and similarly treated by the mob. Soon after this outrage Smith left Ohio to "fulfill the revelation in Missouri.

A special revelation informed Smith that the spot he had selected for the Temple of Zion, was the very place where "Adam's altar was built in the centre of the Garden of Eden." The corner stone of the Temple was laid, Saints were gathered, the forest was felled, and a city was seen springing up in the midst of the wilderness. All property was consecrated to the Lord; a tithe of all labor, and time, and earnings was devoted to the building of the Temple; public store-houses to receive the offerings and donations were built, and three hundred missionaries approved by the Prophet, were sent out in all directions to preach the new gospel and gather the Saints to Zion. These apostles were successful, and company after company of converts crossed the broad Father Waters and pressed forward to the New Jerusalem. In less than ten years, more than twelve hundred Saints were collected in Jackson county a motley gathering of people of almost every hue, character, and creed. There were ambitious men among them, and feuds, bitter and uncompromising, soon disturbed the peace of the church, and jeopardized its existence. These were speedily hushed by menaces of perils from without. The people of Jackson county became uneasy because of the clank

exhibited by the Mormons, and resolved to expel them before they became too formidable in numbers. They were driven to the wilderness across the river, and their consecrated places fell into the hands of the "Gentiles." Smith and the heads of the church had returned to Kirtland. When the attack upon the Mormons was known, the Prophet sent a band of men called the "Army of Zion," to aid the persecuted brethren. Alone, these valiant men could not cope with the Missouri militia and armed settlers; and as Heaven did not seem disposed to assist the Saints, the expedition proved fruitless. Zion was left to the invaders. This persecution was unprovoked, and the Governor of Missouri exerted all his influence for the protection of the persons and property of the Mormons.

The expelled Mormons seated themselves in Clay county, and many returned to Kirtland. In May, 1834, Smith and a company of one hundred Saints visited the distressed brethren in Missouri. On the journey through the wilderness, Smith adduced a wonderful proof of the authenticity of the Book of Mormon. Among some ancient mounds was found a huge skeleton with an arrow between its ribs. It was immediately revealed to the Prophet that the skeleton was that of a Lamanite, the people treated of in the Book of Mormon; that his name was Zelph, a warrior known from Cumorah to the Rocky Mountains as one of the subjects of the great Prophet Omandagus; that the arrow was a Lamanite one, and that the chief was killed in the last great battle fought between the Lamanites and Nephites. The people marveled, and the faith of all was strengthened.

In the autumn of 1834, Smith returned to Kirtland, and with others, entered largely into property speculations in 1835 and '36. The crash of 1837 came; the Bank of Kirtland failed; the managers were prosecuted for swindling, and Smith had a revelation commanding himself, Rigdon, and others to leave Kirtland under cover of night, and go to the brethren in Missouri. They found the church in great disorder. The numbers were rapidly increasing, and quarrels with the "Gentiles" around them often waxed into conflicts. A spirit of insubordination appeared in the church, and by revelation, Smith denounced Cowdrey, Rigdon, and other early associates. Contention within and without menaced the church with destruction, and for three years great excitement prevailed in Missouri. The Mormons and their opponents had frequent collisions, and many lives were sacrificed. Some of the fiery spirits among the Mormons openly defied the people of Missouri, and even threatened to march upon St. Louis, and lay it in ashes. These imprudent menaces exasperated the people to such a degree that the civil power could not restrain them. Tales of polygamy, debauchery, theft, and murder, were told of the Mormons, and their utter expulsion from the State was demanded. A lawless, heartless mob, under the implied sanction of the civil authority, assumed the task, and during the bleak days of November, 1838, the Mormons were driven before them like chaff on the blast, toward the Mississippi. Young and old, the sick, the feeble, delicate women and sucklings, were exposed to storms, hunger, and every privation. In sad plight, weighed down with intensest sufferings, twelve

thousand of these miserable people arrived upon the western bank of the Mississippi, pursued by the exasperated Missourians. The people of Illinois, on the opposite shore, commiserated their fate, and opened to them the arms of succor. This cruel persecution of thousands of innocent people, is a lasting stain upon the character not only of Missouri, but the boasted and enlightened age in which we live. Instead of damping the ardor of the Saints, it increased it a hundred fold; and in this case, as in all others, "the blood of the martyrs" became "the seed of the church."

Upon a rich delta formed by the Desmoines and Mississippi Rivers, in Hancock county, Illinois, the homeless and starving fugitives pitched their tents, and the spot was solemnly consecrated as an "everlasting residence" for the Saints. A town soon arose, and was named Nauvoo, the City of Beauty; and upon the brow of a lofty bluff a temple site was chosen, and consecrated. A plan of the temple was revealed to Smith, and a Gentile architect was employed to construct it. With pomp and solemn ceremonials its corner-stone was laid on the 6th of April, 1841. It was built of beautiful white limestone, and in style, size, and decorations was intended to exceed in magnificence every other fane upon earth. The Saints every where responded nobly to the call for contributions, and when the Mormons left Nauvoo for the land of the Honey Bee, they had expended almost a million of dollars upon this temple.

A day of peace now dawned upon the the Mormon Church, and its head was assiduous in promoting its strength and extension. Made wiser by past conflicts, he prepared for future contingencies, and a large portion of his brethren were organized into a military corps, called "The Nauvoo Legion," of which he assumed command and the rank of Lieutenant-general. He was fond of military display, and this fine corps was often paraded. On such occasions the prophet usually appeared at their head, accompanied by a half-dozen ladies on horseback, who were dressed in black velvet, and wore waving plumes of white feathers. Yet he did not forget the spiritual interests of the Church, and he often crossed the Mississippi, and preached the new gospel to groups of Indians on the borders of the prairies of Iowa.

External peace seemed productive of internal troubles. Sidney Rigdon and others began to receive monstrous revelations, and among other things was authority for one man to have several "spiritual wives;" a doctrine which has now become settled as correct, and which is manifested by polygamy openly practiced and defended. Rumors of these immoral doctrines and corresponding practices went abroad, and the people of Illinois felt scandalized. Smith endeavored to allay the storm of indignation which he saw rising, by flat contradictions, excommunications of indiscreet revelators, and denunciations of some of the most active agitators in Nauvoo. The denounced and excommunicated retaliated. Smith was charged with all the crimes he had accused others of; and a newspaper was established in Nauvoo to expose his alleged vicious conduct. By his order the obnoxious press was destroyed, the printing materials were scattered to the winds and the editors were obliged to flee

for their lives. At Carthage they procured warrants for the arrest of the Prophet, his brother Hyrum, and sixteen others, accused of being accessories in the destruction of the printing-office. The constables sent to arrest them were expelled from the city. The people of the county resolved to vindicate their laws, and the militia were ordered out. The Mormons fortified their city, and the *Nauvoo Legion* slept upon their arms. The torch of civil war was lighted, and the Governor of the State took the field in person. To avoid bloodshed he parleyed with the Mormon leaders, and persuaded the Smiths to surrender themselves to the civil authority, with the assurance that they should receive protection and justice. The Prophet and his brother Hyrum were arrested and sent to Carthage jail. A new issue was now raised—the Smiths were charged with high treason. The fiercest animosity existed between the people of Hancock county and the Mormons. Rumor magnified every fact and event, and the idea prevailed that at the connivance of the Governor, the Mormon leaders would be allowed to escape. This idea grew into vigorous action. The people vowed that "If law could not reach them, powder and shot should;" and on the evening of the 27th of June, 1844, a mob, with blackened faces, fell upon and dispersed the guard at Carthage jail, and rushed into the prison where the two Smiths were confined. Hyrum was shot dead in the cell, and the Prophet was mortally wounded while attempting to leap from a window. He was placed against a wall by one of the gang, and dispatched by bullets from four muskets. The murderers were never identified. Thus died, by the hands of violence, the great head and founder of the "Church of Jesus Christ of Latter Day Saints," at the early age of thirty-nine years. His death is accounted a martyrdom by his followers, and his name and deeds are held in great reverence among them.

The death of the Prophet aroused the vengeance of the Mormons, and they burned with a desire to go forth and spread desolation among the Gentiles. Happily for all, moderate councils prevailed, and their thoughts were turned to the choice of a new head. Rigdon, next in office to Smith, claimed the honor; but the College of the Twelve Apostles conferred it upon the president of their council, Brigham Young. There were other aspirants, and these, with Rigdon, stirred up disaffection. They were all excommunicated, and since that time the influence of Rigdon has steadily waned.

Brigham Young, who is yet at the head of this remarkable "theodemocratic" community, seems well-fitted for his station. Modest and retiring in his private deportment, he is energetic and fervid in his public ministrations, and has unbounded influence over his people. His genius was felt and acknowledged by the College of Twelve before the death of Smith, and he received their unanimous suffrage. With great zeal he applied himself to the discharge of his responsible duties. He established order and quiet at Nauvoo. Around the City of Beauty the wilderness was every where bursting into bloom under the hand of culture, when the mutterings of another storm of persecution were heard. The horizon began to darken, when Rigdon and other recusants, intent on revenge, sent forth horrid tales of debauchery and crime at Nauvoo, to

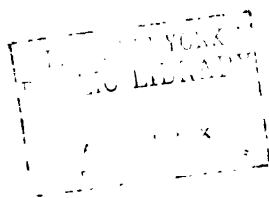
be caught up and repeated by the myriad-tongued press in every part of the land. The Mormons were considered too vile for toleration in a Christian country, and again mobocracy sent forth its behests to lawless men. The smaller Mormon settlements were attacked by armed mobs, and all Illinois became the theatre of civil commotion. From distant States public indignation cheered on the assailants, and it was soon perceived that another Mormon exodus was inevitable. With moistened eyes and swelling hearts, the Saints prepared to leave the City of Beauty and the Temple they so much prized. A special revelation commanded a departure for the far-off wilderness toward the setting sun, and in February, 1846, sixteen hundred men, women, and children, crossed the Mississippi on the ice, and traveling with ox-teams and on foot, penetrated the wilderness to the Indian country, near Council Bluffs, on the Missouri. Property was disposed of at Nauvoo, and during that spring company after company, with their cattle, hastened to join their brethren on the distant prairies.

Many lingered; for a revelation commanded the completion and dedication of their Temple. This tarrying excited distrust of Mormon faith, and the mob again armed to drive the Saints away. The *Legion* defended the city. Many conflicts ensued, but the assailants were kept at bay until the Temple was finished. Then came the dedication. It was a scene of great interest—a *tableau* such as our continent had never exhibited. The Temple itself was a magnificent work of art—a wonderful monument of the unity and energy of a strange people. Young men and maidens came with festoons of flowers, to decorate the twelve elaborately-carved oxen, upon which rested the baptismal laver. The walls were enriched by symbolic ornaments, and in the splendor of lamps and torches, the sun, moon, and stars, carved and gilded upon the walls, glittered like their great originals. Prayers were uttered, chants were sung, and the voice of the great Seer, in the midst of bishops in their sacerdotal robes, solemnly pronounced the Temple dedicated to Almighty God. Even while these impressive services were in progress, the sounds of preparation for departure were heard throughout the city; and an hour after the walls were stripped of the precious emblems, the lights extinguished, the portals closed, and the inscription, "*The House of the Lord: Built by the Church of Jesus Christ of Latter-day Saints: Holiness to the Lord:*" was placed over it, the great body of the persecuted were crowding to the shores of the Mississippi, with their faces toward the occident. On the very day when the costly Temple was dedicated, it was abandoned to the "Gentiles." Thirty months afterward, it was destroyed by fire, at midnight; and in May, 1850, the City of Beauty, then inhabited by a colony of Icarians, from Paris, was desolated by a tornado, and the partially-restored Temple was cast to the earth, a heap of ruins. In September, 1846, the last lingering Mormons at Nauvoo were driven out, at the point of the bayonet, by 1600 troops; and these homeless exiles—sick men, feeble women, and delicate girls—were compelled to traverse the wilderness of Missouri during the storms and frosts of autumn and winter.

Under the guidance of President Young, the Mormon host reached the



CAMPING OUT.



banks of the Missouri, beyond the limits of the States, at the opening of summer. There they were met by an officer of the United State Army, with a requisition to furnish a body of men to serve in the war with Mexico. Although smarting under the lash of persecution and a deep sense of wrong, they cheerfully obeyed; and within three days, a corps of five hundred men, the very sinews of the Mormon host, were organized, and departed for California, to fight in defense of a flag under which they had vainly sought protection. It was an example of loyalty which greatly blunted the keen edge of detraction.

There, upon the broad prairies, they turned up the virgin soil and planted. Leaving a few to cultivate and gather for wanderers who might come after them, the host moved on. Never since the exodus of Israel from Egypt has a pageant so full of interest, so consecrated by loftiest heroism, been witnessed. Order marked every step of their progress. The voice of the Seer was to them the voice of God, and implicit obedience was the result of his commands. Discipline every where prevailed. Every ten wagons were under the command of a captain, who obeyed a captain of fifty; and the latter, in turn, obeyed a centurion, or captain of a hundred, or else a member of the High Council of the Church. They formed *Tabernacle Camps*, or temporary "Stakes," at eligible points, where they stopped to sow and reap, to spin and weave, and perform necessary mechanical work. Great cheerfulness prevailed among them; and singing and dancing, sports and pastimes agreeably alternated with the duties of labor and devotion. They made short marches, and encamped in military order every night. No obstacles impeded their progress. They forded swift-running streams, and bridged the deeper floods. Disease could not chill their zeal, nor bridle their hopes. Many were swept away by miasmatic fevers, and were buried by the way during the summer and autumn; and when winter fell upon them, in the midst of those vast plains, inhabited by the Pottawatiemies and their neighbors, their sufferings were great, notwithstanding they enlisted the liveliest sympathies of the aborigines. They made caves in the sand-hills to shelter themselves from the fierce winds which came nowling from the snowy mountains of Nebraska; and when spring came, they marked out the site of a city on the banks of the Missouri, in the midst of the Great Prairie inhabited by the Omahaws. More than seven hundred houses were built; a Tabernacle was raised; mills and workshops were constructed, and a newspaper (*The Frontier Guardian*) was published.* The rich alluvium around was turned up by the plow, seed was sown, and during the summer and early autumn abundant harvests were gathered. Missionaries were sent to Oregon, California, and even to the Sandwich Islands and Australia. Others, like Caleb and Joshua, were sent to "spy out" the wilderness before them, and find another fitting place for an "everlasting habitation." The valley of the Great

* This city was named *Kane*, in honor of a gentlemen of that name (a brother of Dr. E. K. Kane, the Polar explorer), who was then their guest, and who has since given a graphic account of this remarkable exodus, in a lecture before the Pennsylvania Historical Society.

Salt Lake, inclosed within lofty and rugged mountains, fertile, isolated, and healthful, was chosen; and thitherward, early in the season, a pioneer company of 143 picked men and seventy wagons, drawn by horses, accompanied by their wives and children, and the members of the High Council, proceeded with seeds and implements of agriculture. Their route was upon the left bank of the North Fork of the Platte River to Fort Laramie, where they crossed the stream; and following its course at the base of the rugged Black Hills, penetrated the South Pass. They were now fairly among the Rocky Mountains. Along the Sweet Water, through deep rocky cañons, across the Green River, and the rushing Bear and Weber, and over the lofty summits of the Utah range, they toiled until the evening of the 20th of July, 1847, when they beheld, from the top of the Wahsatch Mountains, the placid Salt Lake glittering in the beams of the setting sun. To those weary wanderers this mountain-top was a Pisgah—it was a scene of wondrous interest. Westward, lofty peaks, bathed in purple air, pierced the sky; as far as the eye could reach, north and south, stretched the fertile Valley of Promise, and here and there the vapors of hot springs, gushing from rocky coverts, curled above the hills like smoke from the hearth-fires of home.

The pilgrims entered the valley on the 21st of July, and on the 24th the President and High Council arrived. Within a week potatoes were planted, the site of a city chosen upon a gentle slope on the bank of a stream which they named Jordan, connecting the more southern Utah Lake with the Great Salt Lake, a fort was commenced, quite extensive seeding began, and with solemn ceremonies the land was consecrated to the Lord. When the seed put forth in autumn, an immense army of black bugs came and destroyed the tender blades, and a dearth menaced the pioneers. Soon great flocks of beautiful white birds, strangers in the valley, came like angels every morning, devoured the "black Philistines," and at evening soared away to their mysterious retreats beyond the mountains. They saved a portion of the crop, but famine came. The Mormons boiled the hides of slaughtered animals for food, and dug roots for sustenance by the side of the savage Utes among the hills. Deliverance came. A large party came forward from the Missouri region with abundance of grain. Fields were seeded; the mild autumn air and warm sun matured late planted crops, and they were blessed with plenty. The following year (1848) the inhabitants of *Kane* pressed forward to the valley, and Saints flocked thither from various points. The New Jerusalem was laid out within an area of four square miles, with broad streets and spacious side-walks. The work of building a city went on rapidly. A spacious house was built for the President and Council, and in less than two years after the advent of the pioneers in the valley, a convention was called at Great Salt Lake City (March 5, 1849) to organize a civil government. A "free and independent government, by the name of the *State of Deseret*," was ordained, and a constitution was adopted designed to remain in force only until the Congress of the United States should erect the settlement into a Territory. Under this temporary instrument, whose provisions were consonant with the Federal Constitution, governmental machinery for "Gentile" residents and travelers, was

put in operation, the Mormons themselves being governed entirely by the Head of the Church. A territorial government was established in 1850, and in October of that year the President of the United States appointed Brigham Young governor.

The Mormons are now making strenuous efforts to increase the popu-



ORSON PRATT.

ulation of their territory. To this end they have sent emissaries abroad to invite the Saints to the new Zion, and a sum exceeding a quarter of a million of dollars have been provided, for the purpose of defraying the expenses of poor pilgrims thither. The pens of Orson Pratt (who established a monthly publication called *The Seer*, at Washington City) their great expounder, and others, are busy in the promulgation of their peculiar views, and in encomiums upon the beauty of the country, the peacefulness and purity of society, and the general happiness of the people of *Deseret*.

In Great Britain their converts are very numerous, amounting at the present time to not less than 80,000. In the three kingdoms of England, Wales, and Scotland, they had, in 1851, 12 high priests, 1761 elders, 1590 priests, 1226 teachers, and 689 deacons. Since 1838 more than 50,000 converts have been baptized in Great Britain, of whom about 17,000 have joined their brethren in America. A large portion of them land at New Orleans, and others go around Cape Horn to California, and thence to *Deseret*. They have missionaries in every quarter of the globe — even the Celestials of China have heard their preaching, and the sect numbers

at the present time, not far from 200,000 souls! Should permanent prosperity attend the commonwealth of *Deseret*, the great bulk of these converts will doubtless be gathered there. What will be the result of the consolidation of such a people, one in interest and faith, in the heart of our continent, whose acknowledged head is supreme in all things, spiritual, temporal, social, and political, is a question worthy of the profound attention of statesmen and political economists.

The country inhabited by the Mormons is one of the most remarkable on the face of the globe. It consists in a series of extensive valleys and rocky margins, spread out in an immense basin, surrounded by rugged mountains, out of which no waters flow. It is midway between the States on the Mississippi and the Pacific Ocean, perfectly isolated from habitable regions, and embracing a domain "covering sixteen degrees of longitude in the Utah latitudes." On the east are the sterile spurs of the Rocky Mountains, stretching down to the vast plains traversed by the Platte river; on the west, extending nearly a thousand miles to the Pacific, are arid salt deserts, broken by barren mountains; and north and south are immense mountain districts, unsusceptible to habitation by man.

According to Kane, Stansbury, Gunnison and others who have visited that region, the Great Basin is more than four thousand feet above the ocean, between the Nevada and Wahsatch ranges. The Great Salt Lake is on the eastern side of an interior basin five hundred miles in diameter; and its southeastern shore, where the Mormons have settled, is the most fertile portion of the whole region. The country along the Jordan from Utah Lake to the Great Salt Lake is very beautiful, and the numerous streams which gush from the hill sides are cold, fresh, and sparkling.* The valleys afford perennial pasturage, and by early irrigation they are made to yield abundant crops. Sixty to seventy bushels of wheat to the acre is an average yield, and potatoes and Indian corn grow luxuriantly. It is estimated that the Great Valley is capable of giving sustenance, from each square mile, to four thousand persons, and that the territory of *Deseret* will maintain, with ease, a million of inhabitants. Wild game abounds in the mountains, and the streams are filled with excellent fish; the climate is delightful at all seasons of the year, and "breathing is a real luxury."

Southward, over the rim of the basin, is a fine cotton-growing region into which the Mormons are penetrating. The vast hills and mountain slopes present the finest pasturage in the world for sheep, alpacas and goats. The water power of the whole mountain region is immense. Iron mines everywhere abound; and in the Green River Basin are inexhaustible beds of coal. In these great natural resources and defenses, possessed by a people of such indomitable energy and perseverance as the Mormons, we see the vital elements of a powerful mountain

* Lieutenant Gunnison says of the Great Salt Lake: "The water is perfectly saturated with salt, and so dense that persons float, cork-like, on its waves, or stand suspended with ease, with the shoulders exposed above the surface."—*The Mormons*, etc., p. 18.

ation, in the heart of our continent, and in the direct pathway from the Atlantic to the Pacific States, that may yet play a most important part, for good or evil, in the destinies of our country and of the world.

The Mormons hold to the Sacrament of *Baptism*, but teach that it is not only efficacious in the salvation of the recipient, but that a person may be baptized for the unregenerated dead — that a man may become a savior for a friend already in the spirit-world. They profess to adhere to primitive forms of church government and have the several orders of officers. The efficacy of *Confirmation*, or laying on of hands for the impartation of the Holy Ghost, is taught, but this, like other rites, is variously interpreted by different teachers. In all their ministrations, the Mormon teachers are liberal latitudinarians. Like the Epicureans, they teach the enjoyment of all the pleasures of this life. Their church worship is opened and closed by the performance of lively airs by a band of music; the revered elders join in the dances, feastings, and sports of the people, and the whole College of Apostles are what pleasure-loving folk would call "jolly fellows." The bosom of the church of Latter Day Saints offers the joys of a Mussulman's Paradise to its children.

Polygamy has doubtless been practiced by the chief men of the Church, ever since the revelation on that subject to Sidney Rigdon, at Nauvoo. It was given the soft appellation of "spiritual wife doctrine," and they sought to give the impression that its practice betook of the purity of Platonic love. But the world would not believe it, although the inspired Prophet himself declared it. They still asserted the purity of the relation, even after they had founded their isolated city in the wilderness; but intelligent Gentiles, when visiting them, discovered the materiality of the doctrine. "I was not aware before," says a recent writer, "that polygamy was sanctioned by their creed, beyond a species of ethereal Platonism which accorded to its especial Saints chosen partners called spiritual wives; but I now found that these, contrary to one's ordinary notions of Spiritualism, gave birth to cherubs and unfledged angels." No longer able to conceal the fact from the world, they now openly avow and defend the practice of polygamy. They even give it the sanction of a religious duty as a means of greater happiness in the future world. They teach that *no woman can attain to celestial glory without a husband to introduce her into paradise; nor can a man arrive at full perfection without at least one wife; and the greater the number he is able to take with him, the higher will be his seat in the celestial city.* In a recent number of *The Seer*, Pratt, the great expounder of their doctrines, boldly advocates this practice, at the same time explaining the various guards which they profess are thrown around the "peculiar institution" to prevent immoral results. Polygamy is now openly practiced in the Great Salt Lake City, and the dignitaries of the church have each as many wives as they are able to support. It is said that President Young, the Sovereign Pontiff, has at least thirty wives in his household! Yet we must not unfairly withhold the acknowledgment that, as a people, they practice many social virtues. They are temperate, industrious, frugal, and honest. They are kind and hospitable to strangers; and many a half-starved and weary emigrant on his way to Cali-

foria, has had reason to bless the Mormons for their charity. The surface of society there exhibits the aspect of the highest degree of public and private virtue and sound morality. But the poison is at work secretly; and not many years will elapse before its effects will be seen on the surface of the body politic.

To the mind of the Christian, the religious character of the Mormons offers a dark picture. To the American patriot, the philanthropist, and the Christian philosopher, the political and social aspect of the sect awakens fearful apprehensions concerning the future. The Mormons are, ostensibly, loyal to the federal constitution, and profess great purity in their social relations. Will their loyalty survive the day of sufficient power to avenge the wrongs they have suffered, provoked or not, at the hands of American citizens? Is their allegiance to the Head of their Church as Supreme Pontiff—"prophet, priest, and king," spiritual and temporal—insignificant and without meaning? Will polygamy, now openly avowed and practiced, be productive of no social evils, which may menace the stability of public virtue and the best interests of society? These are questions of vast importance, and command our most serious attention. The fire of persecution is quenched, we hope, forever. The puissance of public opinion, formed on the basis of public virtue and supported by public law, must enter the lists as champion of social purity and uncorrupt republicanism. The sooner the trumpet of the herald is heard the better. The sect is rapidly increasing in numbers, power and influence. They really assume political, social, and religious independence of all the world. They will not tolerate public officers among them who are not of their faith. They enact laws, regulate commerce, coin money, and do all other things which an independent state claims a right to do. Asserting their saintship *par excellence*, and consequently the whole earth as their patrimony, they look for universal dominion, temporal and spiritual. The Great Salt Lake City—the New Jerusalem—is to be the central capital where the glory of the earth is to be displayed.

PRAIRIE AND MOUNTAIN REGIONS EXPLORED.

One of the most magnificent conceptions connected with the whole history of our country and of humanity, in the present age, is the gradual and inevitable diffusion of a civilized population throughout the vast domains of the West, until they even reach the far distant shores of the Pacific. Whatever instrumentalities may aid in the accomplishment of this glorious result, deserve the commendation and praise of every patriot; and few Americans can boast of possessing a greater, probably none as great, a share in the promotion of this beneficent result, as Col. Frémont. For several years previous to 1843, the tide of emigration continued to spread like a slow but mighty flood, farther and farther over those boundless domains; but many dangers and difficulties harassed the

daring adventurer, as he thus labored heroically to plant the standard of civilization in the midst of those pimeval solitudes. In 1842, a thousand of these bold pioneers started from the confines of Missouri, and traversed the vast plain which intervened between them and the foot of the Rocky Mountains. They then crossed that mighty barrier, after enduring extraordinary privations and perils, and spread themselves out over the verdant slope which descended toward the calm billows and the unwevered shores of the Pacific. The American Congress at this period were singularly averse to taking any measures which would protect these settlers, both from the Indians, and from the other hardships incident to their adventurous life. The British Hudson Bay Company were then the implacable foes of every American colonist; and they constantly incited the Indians to the most infamous outrages upon them.

At length, through the exertions of Mr. Benton, the matter of the Western territories, and the remoter domains of the United States, was brought before Congress in 1842. Considerable opposition then existed in the minds even of distinguished and enlightened statesmen, against any expenditure of time or money, in the promotion of the security and welfare of those vast tracts. It was thought that the time for action had not yet arrived, and that the outlay would not be remunerative. But through the more enlightened exertions of the great statesman of Missouri, a propitious change was effected. A bill was introduced by Mr. Linn, a senator from Missouri, whose purpose was to protect and encourage emigration to those remote regions which lay in the valley of the Oregon, and around the mouth of the Columbia River. The consequence of this movement was, that soon the emigration vastly increased. Colonies were planted throughout Oregon, composed of hardy and industrious settlers; and the foundations were then laid, broad and deep, upon which a mighty empire will hereafter be erected, which will constitute a prominent portion of the prodigious family of empires which, in the progress of time, will occupy and adorn this whole continent. But the chief promotive cause of that very emigration, was the first expedition of Frémont to the Rocky Mountains, which was undertaken in the summer of 1842. His purpose was to establish the feasibility and safety of an overland communication between the Atlantic and the Pacific States. The comprehensive plan of this expedition comprised the whole of those western territories which lie between the Missouri and the Pacific; and the execution of his plan embraced the exploration of the Rocky Mountains, on one of whose highest peaks, that of the Wind River, thirteen thousand feet above the level of the ocean, it was his good fortune afterward to plant the standard of his country.

Before his appointment to this memorable expedition, Lieut. Frémont had become impressed with the important and valuable results which such a venture would produce. He made application to Col. Abert, Chief of the Corps of Topographical Engineers, for permission to visit the frontier lying beyond the Mississippi. No sooner was the permission granted, than his views and aspirations enlarged; and taking back the order to Col. Abert, he had it so altered as to include the Rocky Mountains, and to specify the South Pass as the point to which his

special investigations should be directed. His purpose was to ascertain the most desirable and feasible point in the line of emigrant travel across the mountains, in order that greater facilities might be afforded for the safe and speedy termination of the toils and dangers of the westward-bound pilgrim. The approval of the secretary of war was then obtained; and preparations were immediately made to carry out the enterprise. Ample philosophical instruments and all the necessary stores were provided. Twenty-five *voyageurs* were placed under the control of the chief of the expedition. Four months were occupied in accomplishing the arduous task, and the fullest success attended the labors of the adventurers. Lient. Frémont, with four chosen men, boldly ascended the highest peak of the Rocky Mountains, an eminence till then untrodden by the foot of man; and from his lofty perch he beheld the unknown origin, and fountains, among the gorges and ravines beneath him, whence flowed those vast rivers, some of which discharged their mighty burdens into the capacious Pacific, and some into the more restless bosom of the Mississippi. The minute details of this successful expedition are contained in the succeeding pages and need not here be further dwelt upon. But he who peruses this stirring yet simple and sublime narrative, must rise from it with the conviction, that never have greater devotion and courage, more resolution and fortitude, or more consummate scientific qualities, been employed in the service of science, or in the advancement of the highest and noblest aims of humanity than were possessed and displayed by the hero of this narrative.

To Col. J. J. Abert, chief of the corps of Topographical Engineers:

SIR: Agreeably to your orders to explore and report upon the country between the frontiers of Missouri and the South Pass in the Rocky Mountains, and on the line of the Kansas and Great Platte rivers, I set out from Washington city on the 2d day of May, 1842, and arrived at St. Louis by way of New York, the 22d of May, where the necessary preparations were completed, and the expedition commenced. I proceeded in a steamboat to Chouteau's landing, about four hundred miles by water from St. Louis, and near the mouth of the Kansas river, whence we proceeded twelve miles to Mr. Cyprian Chouteau's trading-house, where we completed our final arrangements for the expedition.

Bad weather, which interfered with astronomical observations, delayed us several days in the early part of June at this post, which is on the right bank of the Kansas river, about ten miles above the mouth, and six beyond the western boundary of Missouri. The sky cleared off at length and we were enabled to determine our position, in longitude $90^{\circ} 25' 46''$, and latitude $39^{\circ} 5' 57''$. The elevation above the sea is about 700 feet. Our camp in the mean time, presented an animated and bustling scene. All were busily engaged in completing the necessary arrangements for our campaign in the wilderness, and profiting by this short stay on the verge of civilization, to provide ourselves with all the little essentials to comfort in the nomadic life we were to lead for the ensuing summer months. Gradually, however, everything—the *matériel* of the camp—men, horses, and even mules—settled into its place;

and by the 10th we were ready to depart; but, before we mount our horses, I will give a short description of the party with which I performed the service.

I had collected in the neighborhood of St. Louis twenty-one men, principally Creole and Canadian *voyageurs*, who had become familiar with prairie life in the service of the fur companies in the Indian country. Mr. Charles Preuss, a native of Germany, was my assistant in the topographical part of the survey; L. Maxwell, of Kaskaskia, had been engaged as hunter, and Christopher Carson (more familiarly known, for his exploits in the mountains, as Kit Carson) was our guide. The persons engaged in St. Louis were:

Clement Lambert, J. B. L'Esperance, J. B. Lefevre, Benjamin Potra, Louis Gouin, J. B. Dumes, Basil Lajeunesse, François Tessier, Benjamin Cadotte, Joseph Clement, Daniel Simonds, Leonard Benoit, Michel Morly, Baptiste Bernier, Honore Ayot, François La Tulipe, Francis Badeau, Louis Menard, Joseph Ruelle, Moise Chardonnais, Auguste Janisse, Raphael Proue.

In addition to these, Henry Brant, son of Col. J. B. Brant, of St. Louis, a young man of nineteen years of age, and Randolph, a lively boy of twelve, son of the Hon. Thomas H. Benton, accompanied me, for the development of mind and body such an expedition would give. We were well armed and mounted, with the exception of eight men, who conducted as many carts, in which were packed our stores, with the baggage and instruments, and which were drawn by two mules. A few loose horses, and four oxen, which had been added to our stock of provisions, completed the train. We set out on the morning of the 10th, which happened to be Friday, a circumstance which our men did not fail to remember and recall during the hardships and vexations of the ensuing journey. Mr. Cyprian Chouteau, to whose kindness, during our stay at his house, we were much indebted, accompanied us several miles on our way, until we met an Indian, whom we had engaged to conduct us on the first thirty or forty miles, where he was to consign us to the ocean of prairie, which, we were told, stretched without interruption almost to the base of the Rocky Mountains.

From the belt of wood which borders the Kansas, in which we had passed several good-looking Indian farms, we suddenly emerged on the prairies, which received us at the outset with some of their striking characteristics; for here and there rode an Indian, and but a few miles distant heavy clouds of smoke were rolling before the fire. In about ten miles we reached the Santa Fé road, along which we continued for a short time, and encamped early on a small stream—having traveled about eleven miles. During our journey, it was the customary practice to encamp an hour or two before sunset, when the carts were disposed so as to form a sort of barricade around a circle some eighty yards in diameter. The tents were pitched, and the horses hobbled and turned loose to graze; and but a few minutes elapsed before the cooks of the messes, of which there were four, were busily engaged in preparing the evening meal. At nightfall, the horses, mules, and oxen were driven in and picketed,—that is, secured by a halter, of which one end was tied

to a small steel-shod picket, and driven into the ground; the halter being twenty or thirty feet long, which enabled them to obtain a little food during the night. When we had reached a part of the country where such a precaution became necessary, the carts being regularly arranged for defending the camp, guard was mounted at eight o'clock, consisting of three men, who were relieved every two hours—the morning-watch being horse-guard for the day. At daybreak the camp was roused, the animals turned loose to graze, and breakfast generally over between six and seven o'clock, when we resumed our march, making regularly a halt at noon for one or two hours. Such was usually the order of the day, except when accident of country forced a variation; which, however, happened but rarely. We traveled the next day along the Santa Fé road, which we left in the afternoon, and encamped late in the evening on a small creek, called by the Indians, Mishmagwi. Just as we arrived at camp, one of the horses set off at full speed on his return, and was followed by others. Several men were sent in pursuit, and returned with the fugitives about midnight, with the exception of one man, who did not make his appearance until morning. He had lost his way in the darkness of the night, and slept on the Prairie. Shortly after midnight it began to rain heavily, and, as our tents were of light and thin cloth, they offered but little obstruction to the rain: we were all well soaked, and glad when morning came. We had a rainy march on the 12th, but the weather grew fine as the day advanced. We encamped in a remarkably beautiful situation on the Kansas bluffs, which commanded a fine view of the river valley, here from four to five miles wide. The central portion was occupied by a broad belt of heavy timber, and nearer the hills the prairies were of the richest verdure. One of the oxen was killed here for food.

We reached the ford of the Kansas late in the afternoon of the 14th, where the river was two hundred and thirty yards wide, and commenced, immediately, preparations for crossing. I had expected to find the river fordable; but it had swollen by the late rains, and was sweeping by with an angry current, yellow and turbid as the Missouri. Up to this point the road we had traveled was a remarkably fine one, well beaten, and level—the usual road of a prairie country. By our route, the ford was one hundred miles from the mouth of the Kansas River. Several mounted men led the way into the stream to swim across. The animals were driven in after them, and in a few minutes all had reached the opposite bank in safety, with the exception of the oxen, which swam some distance down the river, and, returning to the right bank, were not got over till the next morning. In the mean time, the carts had been unloaded and dismantled, and an India-rubber boat, which I had brought with me for the survey of the Platte river, placed in the water. The boat was twenty feet long and five broad, and on it were placed the wheels and body of a cart, with the load belonging to it, and three men with paddles.

The velocity of the current and the inconvenient freight, rendering it difficult to be managed, Basil Lajeunesse, one of our best swimmers, took in his teeth a line attached to the boat, and swam ahead in order to reach a footing as soon as possible, and assist in drawing her over. In

this manner six passages had been successfully made, and as many carts with their contents, and a greater portion of the party, deposited on the left bank; but night was drawing near, and, in our anxiety to have all over before darkness closed in, I put upon the boat the remaining two carts with their accompanying load. The man at the helm was timid on water, and in his alarm capsized the boat. Carts, barrels, boxes, and bales, were in a moment floating down the current; but all the men who were on the shore jumped into the water, without stopping to think if they could swim, and almost every thing—even heavy articles, such as guns and lead—was recovered.

Two of the men who could not swim came nigh being drowned, and all the sugar belonging to one of the messes wasted its sweets on the muddy waters; but our heaviest loss was a large bag of coffee, which contained nearly all our provision. It was a loss which none but a traveler in a strange and inhospitable country can appreciate; and often afterward, when excessive toil and long marching had overcome us with fatigue and weariness, we remembered and mourned over our loss in the Kansas. Carson and Maxwell had been much in the water yesterday, and both, in consequence, were taken ill. The former continuing so, I remained in camp. A number of Kansas Indians visited us to-day. Going up to one of the groups who were scattered among the trees, I found one sitting on the ground, among some of the men, gravely and fluently speaking French, with as much facility and as little embarrassment as any of my own party, who were nearly all of French origin.

From one of the Indian women I obtained a fine cow and calf in exchange for a yoke of oxen. Several of them brought us vegetables, pumpkins, onions, beans, and lettuce. One of them brought butter, and from a half-breed near the river, I had the good fortune to obtain some twenty or thirty pounds of coffee. The dense timber in which we had encamped interfered with astronomical observations, and our wet and damaged stores required exposure to the sun. Accordingly, the tents were struck early the next morning, and, leaving camp at six o'clock, we moved about seven miles up the river, to a handsome, open prairie, some twenty feet above the water, where the fine grass afforded a luxurious repast to our horses.

During the day we occupied ourselves in making astronomical observations, in order to lay down the country to this place; it being our custom to keep up our map regularly in the field, which we found attended with many advantages. The men were kept busy in drying provisions, painting the cart covers, and otherwise completing our equipage, until the afternoon, when powder was distributed to them, and they spent some hours in firing at a mark. We were now fairly in the Indian country, and it began to be time to prepare for the chances of the wilderness.

17th.—The weather yesterday had not permitted us to make the observations I was desirous to obtain here, and I therefore did not move to-day. The people continued their target firing. In the steep bank of the river, were nests of innumerable swallows, into one of which a large prairie snake had got about half his body, and was occupied in

eating the young birds. The old ones were flying about in great distress, darting at him, and vainly endeavoring to drive him off. A shot wounded him, and, being killed, was cut open, and eighteen young swallows were found in his body.

A party of emigrants to the Columbia river, under the charge of Dr. White, an agent of the government in Oregon Territory, were about three weeks in advance of us. They consisted of men, women, and children. There were sixty-four men, and sixteen or seventeen families. They had a considerable number of cattle, and were transporting their household furniture in large, heavy wagons. I understood that there had been much sickness among them, and that they had lost several children. One of the party who had lost his child, and whose wife was very ill, had left them about one hundred miles hence on the prairies; and as a hunter, who had accompanied them, visited our camp this evening, we availed ourselves of his return to the States to write to our friends.

The morning of the 18th was very unpleasant. A fine rain was falling, with cold wind from the north, and mists made the river hills look dark and gloomy. We left our camp at seven, journeying along the foot of the hills which border the Kansas valley, generally about three miles wide, and extremely rich. We halted for dinner, after a march of about thirteen miles, on the banks of one of the many little tributaries to the Kansas, which look like trenches in the prairie, and are usually well timbered. After crossing this stream, I rode off some miles to the left, attracted by the appearance of a cluster of huts near the mouth of the Vermilion. It was a large but deserted Kansas village, scattered in an open wood, along the margin of the stream, chosen with the customary Indian fondness for beauty of scenery. The Pawnees had attacked it in the early spring. Some of the houses were burnt, and others blackened with smoke, and weeds were already getting possession of the cleared places. Riding up the Vermilion river, I reached the ford in time to meet the carts, and crossing, encamped on its western side. The weather continued cold, the thermometer being this evening as low as 49°.

We breakfasted the next morning at half past five, and left our encampment early. The morning was cool, the thermometer being at 45°. Quitting the river bottom, the road ran along the uplands, over a rolling country, generally in view of the Kansas, from eight to twelve miles distant. Many large boulders of a very compact sandstone, of various shades of red, some of them of four or five tons in weight, were scattered along the hills; and many beautiful plants in flower, among which the *amorpha canescens* was a characteristic, enlivened the green of the prairie. At the heads of the ravines I remarked, occasionally thickets of *saix longifolia*, the most common willow of the country. We traveled nineteen miles and pitched our tents at evening on the head waters of a small creek, now nearly dry, but having in its bed several fine springs.

The morning of the 20th was fine, with a southerly breeze and a bright sky; and at seven o'clock we were on the march. We crossed, at 10 A. M., the Big Vermilion, which has a rich bottom of about one mile

in breadth, one-third of which is occupied by timber. Making our usual halt at noon, after a day's march of twenty-four miles, we reached the Big Blue, and encamped on the uplands of the western side, near a small creek, where was a fine large spring of very cold water. This is a clear and handsome stream, about one hundred and twenty feet wide, running with a rapid current, through a well timbered valley. To-day antelope were seen running over the hills, and at evening Carson brought us a fine deer. A pleasant southerly breeze and fine morning had given place to a gale, with indications of bad weather; when, after a march of ten miles, we halted to noon on a small creek, where the water stood in deep pools. In the bank of the creek limestone made its appearance in a stratum about one foot thick. In the afternoon the people seemed to suffer for want of water. The road led along a high dry ridge; dark lines of timber indicated the heads of streams in the plains below; but there was no water near, and the day was oppressive, with a hot wind, and the thermometer at 90°. Along our route the *amorpha* has been in very abundant but variable bloom—in some places bending beneath the weight of purple clusters; in others without a flower. It seemed to love best the sunny slopes, with a dark soil and southern exposure. Everywhere the rose is met with, and reminds us of cultivated gardens and civilization. It is scattered over the prairies in small boquets, and, when glittering in the dews and waving in the breeze of the early morning, is the most beautiful of the prairie flowers.

At the Big Tree, where we had intended to noon on the 22d, no water was to be found. The bed of the little creek was perfectly dry, and on the adjacent sandy bottom, *cacti*, for the first time, made their appearance. We made here a short delay in search of water; and after a hard day's march of twenty-eight miles, encamped, at five o'clock, on the Little Blue, where our arrival made a scene of the Arabian Desert. As fast as they arrived, men and horses rushed into the stream, where they bathed and drank together in common enjoyment. We were now in the range of the Pawnees, who were accustomed to infest this part of the country, stealing horses from companies on their way to the mountains; and, when in sufficient force, openly attacking and plundering them, and subjecting them to various kinds of insult. For the first time, therefore, guard was mounted to-night. Our route the next morning lay up the valley, which, bordered by hills with graceful slopes, looked uncommonly green and beautiful. The stream was about fifty feet wide, and three or four deep, fringed by cotton-wood and willow, with frequent groves of oak, tenanted by flocks of turkeys. Game here, too, made its appearance in greater plenty. Elk were frequently seen on the hills, and now and then an antelope bounded across our path, or a deer broke from the groves. The road in the afternoon was over the upper prairies, several miles from the river, and we encamped at sunset on one of its small tributaries, where an abundance of prele (*equisetum*) afforded fine forage to our tired animals. We had traveled thirty-one miles. A heavy bank of black clouds in the west came on us in a storm between nine and ten, preceded by a violent wind. The rain fell in such torrents that it was difficult to breathe facing the wind; the thunder rolled incessantly, and

the whole sky was tremulous with lightning — now and then illuminated by a blinding flash, succeeded by pitchy darkness. Carson had the watch from ten to midnight, and to him had been assigned our young *compagnons de voyage*, Messrs. Brant and R. Benton. This was their first night on guard, and such an introduction did not auger very auspiciously of the pleasures of the expedition. Many things conspired to render their situation uncomfortable; stories of desperate and bloody Indian fights were rife in the camp; our position was badly chosen, surrounded on all sides by timbered hollows, and occupying an area of several hundred feet, so that necessarily the guards were far apart; and now and then I could hear Randolph, as if relieved by the sound of a voice in the darkness, calling out to the sergeant of the guard, to direct his attention to some imaginary alarm; but they stood it out, and took their turn regularly afterwards.

The next morning we had a specimen of the false alarms to which all parties in these wild regions are subject. Proceeding up the valley, objects were seen on the opposite hills, which disappeared before a glass could be brought to bear upon them. A man who was a short distance in the rear, came springing up in great haste, shouting "Indians! Indians!" He had been near enough to see and count them, according to his report, and had made out twenty-seven. I immediately halted; arms were examined and put in order; the usual preparations made; and Kit Carson, springing upon one of the hunting horses, crossed the river, and galloped off into the opposite prairies, to obtain some certain intelligence of their movements.

Mounted on a fine horse, without a saddle, and scouring bare headed over the prairies, Kit was one of the finest pictures of a horseman I have ever seen. A short time enabled him to discover that the Indian war-party of twenty-seven consisted of six elk, who had been gazing curiously at our caravan as it passed by, and were now scampering off at full speed. This was our first alarm, and its excitement broke agreeably on the monotony of the day.

28th.—We halted to noon at an open reach of the Platte river, which occupies rather more than a fourth of the valley, here only about four miles broad. The camp had been disposed with the usual precaution, the horses grazing at a little distance, attended by the guard, and we were all sitting quietly at our dinner on the grass, when suddenly we heard the startling cry, "Du monde!" In an instant, every man's weapon was in his hand, the horses were driven in, hobbled and picketed, and horsemen were galloping at full speed in the direction of the newcomers, screaming and yelling with the wildest excitement. "Get ready, my lads!" said the leader of the approaching party to his men, when our wild-looking horsemen were discovered bearing down upon them—"nous allons attraper des coups de baguette." They proved to be a small party of fourteen, under the charge of a man named John Lee, and, with their baggage and provisions strapped to their backs, were making their way on foot to the frontier. A brief account of their fortunes will give some idea of navigation in the Nebraska. Sixty days since, they had left the mouth of Laramie's fork, some three hundred

miles above, in barges laden with the furs of the American Fur Company. They started with the annual flood, and, drawing but nine inches water, hoped to make a speedy and prosperous voyage to St. Louis; but, after a lapse of forty days, found themselves only one hundred and thirty miles from their point of departure. They came down rapidly as far as Scott's bluffs, where their difficulties began. Sometimes they came upon places where the water was spread over a great extent, and here they toiled from morning until night, endeavoring to drag their boat through the sands, making only two or three miles in as many days. Sometimes they would enter an arm of the river, where there appeared a fine channel, and, after descending prosperously for eight or ten miles, would come suddenly upon dry sands, and be compelled to return, dragging their boat for days against the rapid current; and at others, they came upon places where the water lay in holes, and, getting out to float off their boat, would fall into water up to their necks, and the next moment tumble over against a sandbar. Discouraged at length, and finding the Platte growing every day more shallow, they discharged the principal part of their cargoes one hundred and thirty miles below Fort Laramie, which they secured as well as possible, and, leaving a few men to guard them, attempted to continue their voyage, laden with some light furs and their personal baggage. After fifteen or twenty days more struggling in the sands, during which they made but one hundred and forty miles, they sunk their barges, made a *cache* of their remaining furs and property in trees on the bank, and, packing on his back what each man could carry, had commenced, the day before we encountered them, their journey on foot to St. Louis. We laughed then at their forlorn and vagabond appearance, and, in our turn a month or two afterwards, furnished the same occasion for merriment to others. Even their stock of tobacco, that *sine qua non* of a voyageur, without which the night fire is gloomy, was entirely exhausted. However, we shortened their homeward journey by a small supply from our own provision. They gave us the welcome intelligence that the buffalo were abundant some two days' march in advance, and made us a present of some choice pieces, which were a very acceptable change from our salt pork. In the interchange of news, and the renewal of old acquaintanceships, we found wherewithal to fill a busy hour; then we mounted our horses and they shouldered their packs, and we shook hands and parted. Among them, I had found an old companion on the northern prairie, a hardened and hardly served veteran of the mountains, who had been as much hacked and scarred as an old moustache of Napoleon's "Old Guard." He flourished in the sobriquet of La Tulipe, and his real name I never knew. Finding that he was going to the States only because his company was bound in that direction, and that he was rather more willing to return with me, I took him again into my service. We traveled this day but seventeen miles.

At our evening camp, about sunset, three figures were discovered approaching, which our glasses made out to be Indians. They proved to be Cheyennes — two men, and a boy of thirteen. About a month since, they had left their people on the south fork of the river, some three hundred miles to the westward, and a party of only four in number had been

to the Pawnee villages on a horse-stealing excursion, from which they were returning unsuccessful. They were miserably mounted on wild horses from the Arkansas plains, and had no other weapons than bows and long spears; and had they been discovered by the Pawnees, could not, by any possibility, have escaped. They were mortified by their ill-success, and said the Pawnees were cowards, who shut up their horses in their lodges at night. I invited them to supper with me, and Randolph and the young Cheyenne, who had been eyeing each other suspiciously and curiously, soon became intimate friends. After supper we sat down on the grass, and I placed a sheet of paper between us on which they traced rudely, but with a certain degree of relative truth, the water-courses of the country which lay between us and their villages, and of which I desired to have some information. Their companions, they told us, had taken a nearer route over the hills; but they had mounted one of the summits to spy out the country, whence they had caught a glimpse of our party, and, confident of good treatment at the hands of the whites, hastened to join company. Latitude of the camp $40^{\circ} 39' 51''$.

We made the next morning sixteen miles. I remarked that the ground was covered in many places with an efflorescence of salt, and the plants were not numerous. In the bottoms were frequently seen *tridacantia*, and on the dry lanches were *carduus*, *cactus*, and *amorpha*. A high wind during the morning had increased to a violent gale from the northwest, which made our afternoon ride cold and unpleasant. We had the welcome sight of two buffaloes on one of the large islands, and encamped at a clump of timber about seven miles from our noon halt, after a day's march of twenty-two miles.

The air was keen the next morning at sunrise, the thermometer standing at 44° , and it was sufficiently cold to make overcoats very comfortable. A few miles brought us into the midst of the buffalo, swarming in immense numbers over the plains, where they had left scarcely a blade of grass standing. Mr. Preuss, who was sketching at a little distance in the rear, had at first noted them as large groves of timber. In the sight of such a mass of life, the traveler feels a strange emotion of grandeur. We had heard from a distance a dull and confused murmuring, and, when we came in view of their dark masses, there was not one among us who did not feel his heart beat quicker. It was the early part of the day, when the herds are feeding; and every where they were in motion. Here and there a huge old bull was rolling in the grass, and clouds of dust rose in the air from various parts of the bands, each the scene of some obstinate fight. Indians and buffalo make the poetry and life of the prairie, and our camp was full of their exhilaration. In place of the quiet monotony of the march, relieved only by the cracking of the whip, and an "avance donc! enfant de garce!" shouts and songs resounded from every part of the line, and our evening camp was always the commencement of a feast, which terminated only with our departure on the following morning. At any time of the night might be seen pieces of the most delicate and choicest meat, roasting *en appolas*, on sticks around the fire, and the guard were never without company. With pleasant weather and no enemy to fear, an abundance of the most excel-

lent meat, and no scarcity of bread or tobacco, they were enjoying the oasis of a voyageur's life. Three cows were killed to-day. Kit Carson had shot one, and was continuing the chase in the midst of another herd, when his horse fell headlong, but sprang up and joined the flying band. Though considerably hurt, he had the good fortune to break no bones; and Maxwell, who was mounted on a fleet hunter, captured the runaway after a hard chase. He was on the point of shooting him, to avoid the loss of his bridle, (a handsomely mounted Spanish one,) when he found that his horse was able to come up with him. Animals are frequently lost in this way; and it is necessary to keep close watch over them, in the vicinity of the buffalo, in the midst of which they scour off to the plains, and are rarely retaken.

Along our road the next day, the prairie bottom was more elevated and dry, and the river hills which border the right side of the river higher, and more broken and picturesque in the outline. The country, too, was better timbered. As we were riding quietly along the bank, a grand herd of buffalo, some seven or eight hundred in number, came crowding up from the river, where they had been to drink, and commenced crossing the plain slowly, eating as they went. The wind was favorable; the coolness of the morning invited to exercise; the ground was apparently good, and the distance across the prairie (two or three miles) gave us a fine opportunity to charge them before they could get among the river hills. It was too fine a prospect for a chase to be lost; and, halting for a few moments, the hunters were brought up and saddled, and Kit Carson, Maxwell, and I, started together. They were now somewhat less than half a mile distant, and we rode easily along until within about three hundred yards, when a sudden agitation, a wavering in the band, and a galloping to and fro of some which were scattered along the skirts, gave us the intimation that we were discovered. We started together at a hand gallop, riding steadily abreast of each other; and here the interest of the chase became so engrossingly intense, that we were sensible to nothing else. We were now closing upon them rapidly, and the front of the mass was already in rapid motion for the hills, and in a few seconds the movement had communicated itself to the whole herd.

A crowd of bulls, as usual, brought up the rear, and every now and then some of them faced about, and then dashed on after the band a short distance, and turned and looked again, as if more than half inclined to fight. In a few moments, however, during which we had been quickening our pace, the rout was universal, and we were going over the ground like a hurricane. When at about thirty yards, we gave the usual shout, (the hunter's *pas de charge*,) and broke into the herd. We entered on the side, the mass giving way in every direction in their heedless course. Many of the bulls, less active and fleet than the cows, paying no attention to the ground, and occupied solely with the hunter, were precipitated to the earth with great force, rolling over and over with the violence of the shock, and hardly distinguishable in the dust. We separated on entering, each singling out his game.

My horse was a trained hunter, famous in the West under the name of Troveau; and, with his eyes flashing and the foam flying from his mouth,

sprang on after the cow like a tiger. In a few moments he brought me along side of her, and rising in the stirrups, I fired at the distance of a yard, the ball entering at the termination of the long hair, and passing near the heart. She fell headlong at the report of the gun; and, checking my horse, I looked around for my companions. At a little distance, Kit was on the ground, engaged in tying his horse to the horns of a cow he was preparing to cut up. Among the scattered bands, at some distance below, I caught a glimpse of Maxwell; and while I was looking, a light wreath of smoke curled away from his gun, from which I was too far to hear the report. Nearer, and between me and the hills, towards which they were directing their course, was the body of the herd; and, giving my horse the rein, we dashed after them. A thick cloud of dust hung upon their rear, which filled my mouth and eyes, and nearly smothered me. In the midst of this I could see nothing, and the buffalo were not distinguishable until within thirty feet. They crowded together more densely still as I came upon them, and rushed along in such a compact body, that I could not obtain an entrance—the horse almost leaping upon them. In a few moments the mass divided to the right and left, the horns clattering with a noise heard above every thing else, and my horse darted into the opening. Five or six bulls charged on us as we dashed along the line, but were left far behind; and, singling out a cow, I gave her my fire, but struck too high. She gave a tremendous leap, and scoured on swifter than before. I reined up my horse, and the band swept on like a torrent, and left the place quiet and clear. Our chase had led us into dangerous ground. A prairie-dog village, so thickly settled that there were three or four holes in every twenty yards square, occupied the whole bottom for nearly two miles in length. Looking around, I saw only one of the hunters, nearly out of sight, and the long, dark line of our caravan crawling along, three or four miles distant. After a march of twenty-four miles, we encamped at nightfall, one mile and a half above the lower end of Brady's Island. The breadth of this arm of the river was eight hundred and eighty yards, and the water nowhere two feet in depth. The island bears the name of a man killed on this spot some years ago. His party had encamped here, three in company, and one of the number went off to hunt, leaving Brady and his companion together. These two had frequently quarreled, and on the hunter's return he found Brady dead, and was told that he had shot himself accidentally. He was buried here on the bank; but, as usual, the wolves tore him out, and some human bones that were lying on the ground we supposed were his. Troops of wolves that were hanging on the skirts of the buffalo, kept up an uninterrupted howling during the night, venturing almost into camp. In the morning, they were sitting at a short distance, barking, and impatiently waiting our departure, to fall upon the bones.

The camp was roused on the 4th July by a salute at daybreak, and from our scanty store a portion of what the Indians called "red fire-water" served out to the men. While we were at breakfast, a buffalo-calf broke through the camp, followed by a couple of wolves. In its fright, it had probably mistaken us for a band of buffalo. The wolves

were obliged to make a circuit round the camp, so that the calf got a little the start, and strained every nerve to reach a large herd at the foot of the hills, about two miles distant; but first one and then another, and another wolf joined in the chase, until his pursuers amounted to twenty or thirty, and they ran him down before he could reach his friends. There were a few bulls near the place, and one of them attacked the wolves and tried to rescue him; but was driven off immediately, and the little animal fell an easy prey, half devoured before he was dead. We watched the chase with the interest always felt for the weak; and had there been a saddled horse at hand, he would have fared better.

As we were riding slowly along this afternoon, clouds of dust in the ravines, among the hills to the right, suddenly attracted our attention, and in a few minutes column after column of buffalo came galloping down, making directly to the river. By the time the leading herds had reached the water, the prairie was darkened with the dense masses immediately before us, when the bands first came down into the valley, stretched an unbroken line, the head of which was lost among the river hills on the opposite side; and still they poured down from the ridge on our right. From hill to hill, the prairie bottom was certainly not less than two miles wide; and, allowing the animals to be ten feet apart, and only ten in a line, there were already eleven thousand in view. Some idea may thus be formed of their number when they had occupied the whole plain. In a short time they surrounded us on every side, extending for several miles in the rear, and forward as far as the eye could reach; leaving around us, as we advanced, an open space of only two or three hundred yards. This movement of the buffalo indicated to us the presence of Indians on the North fork.

I halted earlier than usual, about forty miles from the junction, and all hands were soon busily engaged in preparing a feast to celebrate the day. The kindness of our friends at St. Louis had provided us with a large supply of excellent preserves and rich fruit-cake; and when these were added to a macaroni soup, and variously prepared dishes of the choicest buffalo-meat, crowned with a cup of coffee, and enjoyed with a prairie appetite, we felt, as we sat in barbaric luxury around our smoking supper on the grass, a greater sensation of enjoyment than the Roman epicure at his perfumed feast. But most of all it seemed to please our Indian friends, who, in the unrestrained enjoyment of the moment, demanded to know if our "medicine-days came often." No restraint was exercised at the hospitable board, and, to the great delight of his elders, our young Indian lad made himself extremely drunk.

Our encampment was within a few miles of the place where the road crosses to the North fork, and various reasons led me to divide my party at this point. The North fork was the principal object of my survey; but I was desirous to ascend the South branch, with a view of obtaining some astronomical positions, and determining the mouths of its tributaries as far as St. Vrain's fort, estimated to be some two hundred miles farther up the river, and near to Long's Peak. I therefore set out the next morning, accompanied by four men—Maxwell, Bernier, Ayot, and Basil Lajeunesse. Our Cheyennes, whose village lay up this river, also decided to accompany us.

We had one led horse in addition to those we rode, and a pack-mule destined to carry our instruments, provisions, and baggage; the last two articles not being of great weight. The instruments consisted of a sextant, artificial horizon, &c., a barometer, spy-glass, and compass. The chronometer I of course kept on my person. I had ordered the cook to put up for us some flour, coffee, and sugar, and our rifles were to furnish the rest. One blanket, in addition to his saddle and saddle blanket, furnished the materials for each man's bed, and every one was provided with a change of linen. All were armed with rifles or double-barreled guns; and, in addition to these, Maxwell and myself were furnished with excellent pistols. Thus accoutred, we took a parting breakfast with our friends, and set forth.

Our journey the first day afforded nothing of any interest. We shot a buffalo towards sunset, and having obtained some meat for our evening meal, encamped where a little timber afforded us the means of making a fire. Having disposed our meat on roasting-sticks, we proceeded to unpack our bales in search of coffee and sugar, and flour for bread. With the exception of a little parched coffee, unground, we found nothing. Our cook had neglected to put it up, or it had been somehow forgotten. Tired and hungry, with tough bull-meat without salt, (for we had not been able to kill a cow,) and a little bitter coffee, we sat down in silence to our miserable fare, a very disconsolate party; for yesterday's feast was yet fresh in our memories, and this was our first brush with misfortune. Each man took his blanket, and laid himself down silently; for the worst part of these mishaps is, that they make people ill-humored. To-day we had traveled about thirty-six miles.

We continued our journey, seven in number, including the three Cheyennes. Our general course was southwest, up the valley of the river, which was sandy, bordered on the northern side of the valley by a low ridge; and on the south, after seven or eight miles, the river hills became higher. Six miles from our resting-place we crossed the bed of a considerable stream, now entirely dry—a bed of sand. In a grove of willows, near the mouth, were the remains of a considerable fort, constructed of trunks of large trees. It was apparently very old, and had probably been the scene of some hostile encounter among the roving tribes. Its solitude formed an impressive contrast to the picture which our imaginations involuntarily drew of the busy scene which had been enacted here. The timber appeared to have been much more extensive formerly than now.

Buffalo absolutely covered the plain, on both sides of the river, and whenever we ascended the hills, scattered herds gave life to the view in every direction. A small drove of wild horses made their appearance on the low river bottoms, a mile or two to the left, and I sent off one of the Indians (who seemed very eager to catch one) on my led horse, a spirited and fleet animal. The savage manœuvred a little to get the wind of the horses, in which he succeeded—approaching within a hundred yards without being discovered. The chase for a few minutes was interesting. My hunter easily overtook and passed the hindmost of the wild drove, which the Indian did not attempt to *lasso*; all his efforts being directed to capture the leader. But the strength of the horse, weakened by the insufficient nourishment of the grass, failed in a race, and all the drove

escaped. We halted at noon on the bank of the river, the barometer at that time being 26.192, and the thermometer 103°, with a light air from the south and clear weather.

In the course of the afternoon, dust rising among the hills, at a particular place, attracted our attention; and, riding up, we found a band of eighteen or twenty buffalo bulls engaged in a desperate fight. Though butting and goring were bestowed liberally, and without distinction, yet their efforts were evidently directed against one—a huge, gaunt old bull very lean, while his adversaries were all fat and in good order. He appeared very weak, and had already received some wounds; and, while we were looking on, was several times knocked down and badly hurt, and a very few moments would have put an end to him. Of course, we took the side of the weaker party, and attacked the herd; but they were so blind with rage, that they fought on, utterly regardless of our presence, although on foot and on horseback we were firing, in open view, within twenty yards of them. But this did not last long. In a very few seconds we created a commotion among them. One or two, which were knocked over by the balls, jumped up and ran off into the hills; and they began to retreat slowly along a broad ravine to the river, fighting furiously as they went. By the time they had reached the bottom, we had pretty well dispersed them, and the old bull hobbled off to lie down somewhere.

Journeying along, we came suddenly upon a place where the ground was covered with horses' tracks, which had been made since the rain, and indicated the immediate presence of Indians in our neighborhood. The buffalo, too, which the day before had been so numerous, were nowhere in sight—another sure indication that there were people near. Riding on, we discovered the carcass of a buffalo recently killed—perhaps the day before. We scanned the horizon carefully with the glass, but no living object was to be seen. For the next mile or two, the ground was dotted with buffalo carcasses, which showed that the Indians had made a surround here, and were in considerable force. We went on quickly and cautiously, keeping the river bottom, and carefully avoiding the hills; but we met with no interruption, and began to grow careless again. We had already lost one of our horses, and here Basil's mule showed symptoms of giving out, and finally refused to advance, being what the Canadians call *reste*. He therefore dismounted, and drove her along before him; but this was a very slow way of traveling. We had inadvertently got about half a mile in advance, but our Cheyennes, who were generally a mile or two in the rear, remained with him. There were some dark-looking objects among the hills, about two miles to the left, here low and undulating, which we had seen for a little time, and supposed to be buffalo coming in to water; but, happening to look behind, Maxwell saw the Cheyennes whipping up furiously, and another glance at the dark objects showed them at once to be Indians coming up at speed.

Had we been well mounted and disencumbered of instruments, we might have set them at defiance; but as it was, we were fairly caught. It was too late to rejoin our friends, and we endeavored to gain a clump of timber about half a mile ahead; but the instruments and tired state of our horses did not allow us to go faster than a steady canter, and they

were gaining on us fast. At first, they did not appear to be more than fifteen or twenty in number, but group after group darted into view at the top of the hills, until all the little eminences seemed in motion; and, in a few minutes from the time they were first discovered, two or three hundred, naked to the breechcloth, were sweeping across the prairie. In a few hundred yards we discovered that the timber we were endeavoring to make was on the opposite side of the river; and before we could reach the bank down came the Indians upon us.

I am inclined to think that in a few seconds more the leading man, and perhaps some of his companions, would have rolled in the dust; for we had jerked the covers from our guns, and our fingers were on the triggers. Men in such cases generally act from instinct, and a charge from three hundred naked savages is a circumstance not well calculated to promote a cool exercise of judgment. Just as he was about to fire, Maxwell recognized the leading Indian, and shouted to him in the Indian language, "You're a fool, G— damn you—don't you know me?" The sound of his own language seemed to shock the savage; and, swerving his horse a little, he passed us like an arrow. He wheeled, as I rode out towards him, and gave me his hand, striking his breast and exclaiming, "Arapaho!" They proved to be a village of that nation, among whom Maxwell had resided as a trader a year or two previously, and recognized him accordingly. We were soon in the midst of the band, answering as well as we could a multitude of questions; of which the very first was, of what tribe were our Indian companions who were coming in the rear? They seemed disappointed to know that they were Cheyennes, for they had fully anticipated a grand dance around a Pawnee scalp that night.

The chief showed us his village at a grove on the river six miles ahead, and pointed out a band of buffalo on the other side of the Platte, immediately opposite us, which he said they were going to surround. They had seen the band early in the morning from their village, and had been making a large circuit, to avoid giving them the wind, when they discovered us. In a few minutes the women came galloping up, astride on their horses, and naked from the knees down and the hips up. They followed the men, to assist in cutting up and carrying off the meat.

The wind was blowing directly across the river, and the chief requested us to wait where we were for awhile, in order to avoid raising the herd. We therefore unsaddled our horses, and sat down on the bank to view the scene; and our new acquaintances rode a few hundred yards lower down, and began crossing the river. Scores of wild-looking dogs followed, looking like troops of wolves, and having, in fact, but very little of the dog in their composition. Some of them remained with us, and I checked one of the men, whom I found aiming at one, which he was about to kill for a wolf. The day had become very hot. The air was clear, with a very slight breeze; and now, at 12 o'clock, while the barometer stood at 25.920, the attached thermometer was at 108°. Our Cheyennes had learned that with the Arapaho village were about twenty lodges of their own, including their own families; they therefore immediately commenced making their toilette. After bathing in the river, they invested themselves in some handsome calico shirts, which I after-

ward, learned they had stolen from my own men, and spent some time in arranging their hair and painting themselves with some vermilion I had given them. While they were engaged in this satisfactory manner, one of their half-wild horses, to which the crowd of prancing animals which had just passed had recalled the freedom of her existence among the wild droves on the prairie, suddenly dashed into the hills at the top of her speed. She was their pack-horse, and had on her back all the world's wealth of our poor Cheyennes, all their accoutrements, and all the little articles which they had picked up among us, with some few presents I had given them. The loss which they seemed to regret most were their spears and shields, and some tobacco which they had received from me. However, they bore it with all the philosophy of an Indian, and laughingly continued their toilette. They appeared, however, a little mortified at the thought of returning to the village in such a sorry plight. "Our people will laugh at us," said one of them, "returning to the village on foot, instead of driving back a drove of Pawnee horses." He demanded to know if I loved my sorrel hunter very much; to which I replied, he was the object of my most intense affection. Far from being able to give, I was myself in want of horses; and any suggestion of parting with the few I had valuable, was met with a peremptory refusal. In the mean time, the slaughter was about to commence on the other side. So soon as they reached it, the Indians separated into two bodies. One party proceeded directly across the prairie, towards the hills, in an extended line, while the other went up the river; and instantly as they had given the wind to the herd, the chase commenced. The buffalo started for the hills, but were intercepted and driven back towards the river, broken and running in every direction. The clouds of dust soon covered the whole scene, preventing us from having any but an occasional view. It had a very singular appearance to us at a distance, especially when looking with the glass. We were too far to hear the report of the guns, or any sound; and at every instant, through the clouds of dust, which the sun made luminous, we could see for a moment two or three buffalo dashing along, and close behind them an Indian with his long spear, or other weapon, and instantly again they disappeared. The apparent silence, and the dimly seen figures flitting by with such rapidity, gave it a kind of dreamy effect, and seemed more like a picture than a scene of real life. It had been a large herd where the *cerne* commenced, probably three or four hundred in number; but, though I watched them closely, I did not see one emerge from the fatal cloud where the work of destruction was going on. After remaining here about an hour, we resumed our journey in the direction of the village.

Gradually, as we rode on, Indian after Indian came dropping along, laden with meat; and by the time we had neared the lodges, the backward road was covered with the returning horsemen. It was a pleasant contrast with the desert road we had been traveling. Several had joined the company with us, and one of the chiefs invited us to his lodge. The village consisted of about one hundred and twenty-five lodges, of which twenty were Cheyennes; the latter pitched a little apart from the Arapahoes. They were disposed in a scattering manner on both sides of a

broad, irregular street, about one hundred and fifty feet wide, and running along the river. As we rode along, I remarked near some of the lodges a kind of tripod frame, formed of three slender poles of birch, scraped very clean, to which were affixed the shield and spear, with some other weapons of a chief. All were scrupulously clean, the spear-head was burnished bright, and the shield white and stainless. It reminded me of the days of feudal chivalry; and when, as I rode by, I yielded to the passing impulse, and touched one of the spotless shields with the muzzle of my gun, I almost expected a grim warrior to start from the lodge and resent my challenge. The master of the lodge spread out a robe for me to sit upon, and the squaws set before us a large dish of buffalo meat. He had lit his pipe in the meanwhile, and when it had been passed around, we commenced our dinner while he continued to smoke. Gradually, however, five or six other chiefs came in, and took their seats in silence. When we had finished, our host asked a number of questions relative to the object of our journey, of which I made no concealment; telling him simply that I had made a visit to see the country, preparatory to the establishment of military posts on the way to the mountains. Although this was information of the highest interest to them, and by no means calculated to please them, it excited no expression of surprise, and in no way altered the grave courtesy of their demeanor. The others listened and smoked. I remarked, that in taking the pipe for the first time, each had turned the stem upward, with a rapid glance, as in offering to the Great Spirit, before he put it in his mouth. A storm had been gathering for the past hour, and some pattering drops in the lodge warned us that we had some miles to our camp. An Indian had given Maxwell a bundle of dried meat, which was very acceptable, as we had nothing; and, springing upon our horses, we rode off at dusk in the face of a cold shower and driving wind. We found our companions under some densely foliated old trees, about three miles up the river. Under one of them lay the trunk of a large cottonwood, to leeward of which the men had kindled a fire, and we sat here and roasted our meat in tolerable shelter.

Next morning we caught the first faint glimpse of the Rocky Mountains, about sixty miles distant. Though a tolerably bright day, there was a slight mist, and we were just able to discern the snowy summit of "Long's Peak," ("*les deux oreilles*" of the Canadians,) showing like a cloud near the horizon. I found it easily distinguishable, there being a perceptible difference in its appearance from the white clouds that were floating about the sky. I was pleased to find that among the traders the name of "Long's Peak" had been adopted and become familiar in the country. In the ravines near this place, a light brown sandstone made its first appearance. About 8, we discerned several persons on horseback a mile or two ahead, on the opposite side of the river. They turned in towards the river, and we rode down to meet them. We found them to be two white men, and a mulatto named Jim Beckwith, who had left St. Louis when a boy, and gone to live with the Crow Indians. He had distinguished himself among them by some acts of daring bravery and had risen to the rank of chief, but had now, for some years, left them

They were in search of a band of horses that had gone off from a camp some miles above, in charge of Mr. Chabonard. Two of them continued down the river, in search of the horses, and the American turned back with us, and we rode on towards the camp. About eight miles from our sleeping-place, we reached Bijou's fork, an affluent of the right bank. Where we crossed it, a short distance from the Platte, it has a sandy bed about four hundred yards broad; the water in various small streams, a few inches deep. Seven miles further brought us to the camp of some four or five whites, (New Englanders, I believe,) who had accompanied Captain Wyeth to the Columbia river, and were independent trappers. All had their squaws with them, and I was really surprised at the number of little fat buffalo-fed boys that were tumbling about the camp, all apparently of the same age, about three or four years old. They were encamped on a rich bottom, covered with a profusion of rich grass, and had a large number of fine-looking horses and mules. We rested with them a few minutes, and in about two miles arrived at Chabonard's camp, on an island in the Platte. On the heights above, we met the first Spaniard I had seen in the country. Mr. Chabonard was in the service of Bent and St. Vrain's company, and had left their fort some forty or fifty miles above, in the spring, with boats laden with the furs of the last year's trade. He had met the same fortune as the voyageurs on the North fork; and, finding it impossible to proceed, had taken up his summer's residence on this island, which he had named St. Helena. The river hills appeared to be composed entirely of sand, and the Platte had lost the muddy character of its waters, and here was tolerably clear. From the mouth of the South fork, I had found it occasionally broken up by small islands; and at the time of our journey, which was at a season of the year when the waters were at a favorable stage, it was not navigable for any thing drawing six inches water. The current was very swift—the bed of the stream a coarse gravel. From the place at which we had encountered the Arapahoes, the Platte had been tolerably well fringed with timber, and the island here had a fine grove of very large cottonwoods, under whose broad shade the tents were pitched. There was a large drove of horses in the opposite prairie bottom; smoke was rising from the scattered fires, and the encampment had quite a patriarchal air. Mr. C. received us hospitably. One of the people was sent to gather mint, with the aid of which he concocted very good julep; and some boiled buffalo tongue, and coffee with the luxury of sugar, were soon set before us. The people in his employ were generally Spaniards, and among them I saw a young Spanish woman from Taos, whom I found to be Beckwith's wife.

We parted with our hospitable host after breakfast the next morning, and reached St. Vrain's fort, about forty-five miles from St. Helena, late in the evening. This post is situated on the South fork of the Platte, immediately under the mountains, about seventeen miles east of Long's Peak. It is on the right bank, on the verge of the upland prairie, about forty feet above the river, of which the immediate valley is about six hundred yards wide. The stream is divided into various branches by small islands, among which it runs with a swift current. The bed of the river

is sand and gravel, the water very clear, and here may be called a mountain stream. This region appears to be entirely free from the limestone and marls which give to the Lower Platte its yellow and dirty color. The Black Hills lie between the stream and the mountains, whose snowy peaks glitter a few miles beyond. At the fort we found Mr. St. Vrain, who received us with much kindness and hospitality. Maxwell had spent the last two or three years between this post and the village of Taos; and here he was at home, and among his friends. Spaniards frequently came over in search of employment. They usually obtain about six dollars a month, generally paid to them in goods. They are very useful in a camp, in taking care of horses and mules; and I engaged one, who proved to be an active, laborious man, and was of very considerable service to me. The elevation of the Platte here is five thousand four hundred feet above the sea. The neighboring mountains did not appear to enter far the region of perpetual snow, which was generally confined to the northern side of the peaks. On the southern, I remarked very little. Here it appeared, so far as I could judge in the distance, to descend but a few hundred feet below the summits.

I regretted that time did not permit me to visit them; but the proper object of my survey lay among the mountains farther north; and I looked forward to an exploration of their snowy recesses with great pleasure. The piney region of the mountains to the south was enveloped in smoke, and I was informed had been on fire for several months. Pike's Peak is said to be visible from this place, about one hundred miles to the southward; but the smoky state of the atmosphere prevented my seeing it.

The kindness of Mr. St. Vrain enabled me to obtain a couple of horses and three good mules; and, with a further addition to our party of the Spaniard whom I had hired, and two others, who were going to obtain service at Laramie's fork, we resumed our journey at ten, on the morning of the 12th.

For a short distance our road lay down the valley of the Platte, which resembled a garden in the splendor of fields of varied flowers, which filled the air with fragrance. The only timber I noticed consisted of poplar, birch, cottonwood, and willow.

After a ride of twelve miles, in a northerly direction, over a plain, covered with innumerable quantities of *cacti*, we reached a small creek in which there was water, and where several herds of buffalo were scattered about among the ravines, which always afford good pasturage. We seem now to be passing along the base of a plateau of the Black Hills, in which the formation consists of marls, some of them white and laminated; the country to the left rising suddenly, and falling off gradually and uniformly to the right. In five or six miles of a northeasterly course, we struck a high ridge, broken into conical peaks, on whose summits large boulders were gathered in heaps. The magnetic direction of the ridge is northwest and southeast, the glittering white of its precipitous sides making it visible for many miles to the south. It is composed of a soft earthy limestone and marls, resembling that in the neighborhood of the Chimney Rock, on the North fork of the Platte, easily worked by the winds

and rains, and sometimes moulded into very fantastic shapes. At the foot of the northern slope was the bed of a creek, some forty feet wide, coming, by frequent falls, from the bench above. It was shut in by high, perpendicular banks, in which were strata of white laminated marl. Its bed was perfectly dry, and the leading feature of the whole region is one of remarkable aridity, and perfect freedom from moisture. In about six miles we crossed the bed of another dry creek; and, continuing our ride over a high level prairie, a little before sundown we came suddenly upon a beautiful creek, which revived us with a feeling of delighted surprise by the pleasant contrast of the deep verdure of its banks with the parched desert we had passed. We had suffered much to-day, both men and horses, for want of water; having met with it but once in our uninterrupted march of forty miles; and an exclusive meat diet creates much thirst.

Our course next morning was northerly by compass, the variation being 15° or 16° easterly. A ride of four miles brought us to Lodge Pole creek, which we had seen at the mouth of the South fork; crossing on the way two dry streams, in eighteen miles from our encampment of the past night, we reached a high bleak ridge, composed entirely of the same earthy limestone and marl previously described. I had never seen any thing which impressed so strongly on my mind a feeling of desolation. The valley, through which ran the waters of Horse creek, lay in view to the north, but too far to have any influence on the immediate view. On the peak of the ridge where I was standing, some seven hundred feet above the river, the wind was high and bleak; the barren and arid country seemed as if it had been swept by fires, and in every direction the same dull ash-colored hue, derived from the formation, met the eye. On the summits were some stunted pines, many of them dead, all wearing the same ashen hue of desolation. We left the place with pleasure; and, after we had descended several hundred feet, halted in one of the ravines, which, at the distance of every mile or two, cut the flanks of the ridge with little rushing streams, wearing something of a mountain character. We crossed, in the space of twelve miles from our noon halt, three or four forks of Horse creek, and encamped at sunset on the most easterly.

The fork on which we encamped appeared to have followed an easterly direction up to this place; but here it makes a very sudden bend to the north, passing between two ranges of precipitous hills, called, as I was informed, Goshen's Hole. There is somewhere in or near this locality a place so called, but I am not certain that it was the place of our encampment. Looking back upon the spot, at the distance of a few miles to the northward, the hills appear to shut in the prairie, through which runs the creek, with a semicircular sweep, which might very naturally be called a hole in the hills. The geological composition of the ridge is the same which constitutes the rock of the Court-house and Chimney, on the North fork, which appeared to me a continuation of this ridge. The winds and rains work this formation into a variety of singular forms. The pass into Goshen's Hole is about two miles wide, and the hill on the western side imitates, in an extraordinary manner, a massive fortified

place, with a remarkable fulness of detail. The rock is marl and earthy limestone, white, without the least appearance of vegetation, and much resembles masonry at a little distance; and here it sweeps around a levee area two or three hundred yards in diameter, and in the form of a half-moon, terminating on either extremity in enormous bastions. Along the whole line of the parapets appear domes and slender minarets, forty or fifty feet high, giving it every appearance of an old fortified town. On the waters of White river, where this formation exists in great extent, it presents appearances which excite the admiration of the solitary voyager, and form a frequent theme of their conversation when speaking of the wonders of the country. Sometimes it offers the perfectly illusive appearance of a large city, with numerous streets and magnificent buildings, among which the Canadians never fail to see their *cabaret* — and sometimes it takes the form of a solitary house, with many large chambers, into which they drive their horses at night, and sleep in these natural defenses perfectly secure from any attack of prowling savages. Before reaching our camp at Goshen's Hole, in crossing the immense detritus at the foot of the Castle rock, we were involved amidst winding passages cut by the waters of the hill; and where, with a breadth scarcely large enough for the passage of a horse, the walls rise thirty and forty feet perpendicularly. This formation supplies the discoloration of the Platte.

Towards the close of the 15th we came in sight of Laramie's fork. Issuing from the river hills, we came first in view of Fort Platte, a post belonging to Messrs. Sybille, Adams & Co., situated immediately in the point of land at the junction of Laramie with the Platte. Like the post we had visited on the South fork, it was built of earth, and still unfinished, being enclosed with walls (or rather houses) on three of the sides, and open on the fourth to the river. A few hundred yards brought us in view of the post of the American Fur Company, called Fort John, or Laramie. This was a large post having more the air of military construction than the fort at the mouth of the river. It is on the left bank, on a rising ground some twenty-five feet above the water; and its lofty walls, whitewashed and picketed, with the large bastions at the angles, gave it quite an imposing appearance in the uncertain light of evening. A cluster of lodges, which the language told us belonged to Sioux Indians, was pitched under the walls; and, with the fine background of the Black Hills and the prominent peak of Laramie mountain, strongly drawn in the clear light of the western sky, where the sun had already set, the whole formed at the moment a strikingly beautiful picture. From the company at St. Louis I had letters for Mr. Boudeau, the gentleman in charge of the post, by whom I was received with great hospitality and an efficient kindness, which was invaluable to me during my stay in the country. I found our people encamped on the bank, a short distance above the fort. All were well, and, in the enjoyment of a bountiful supper, which coffee and bread made luxurious to us, we soon forgo the fatigues of the last ten days.

I walked up to visit our friends at the fort, which is a quadrangular structure, built of clay, after the fashion of the Mexicans, who are gea

erally employed in building them. The walls are about fifteen feet high, surmounted with a wooden pallisade, and form a portion of ranges of houses, which entirely surround a yard of about one hundred and thirty feet square. Every apartment has its door and window—all, of course, opening on the inside. There are two entrances, opposite each other, and midway the wall, one of which is a large and public entrance; the other smaller and more private—a sort of postern gate. Over the great entrance is a square tower with loopholes, and, like the rest of the work built of earth. At two of the angles, and diagonally opposite each other, are large square bastions, so arranged as to sweep the four faces of the walls.

This post belongs to the American Fur Company, and, at the time of our visit, was in the charge of Mr. Boudeau. Two of the company's clerks, Messrs. Galpin and Kellogg, were with him, and he had in the fort about sixteen men. As usual, these had found wives among the Indian squaws; and, with the usual accompaniment of children, the place had quite a populous appearance. It is hardly necessary to say, that the object of the establishment is trade with the neighboring tribes, who, in the course of the year, generally make two or three visits to the fort. In addition to this, traders, with a small outfit, are constantly kept amongst them.

The fort had a very cool and clean appearance. The great entrance, in which I found the gentlemen assembled, and which was floored, and about fifteen feet long, made a pleasant, shaded seat, through which the breeze swept constantly; for this country is famous for high winds. In the course of the conversation, I learned the following particulars, which will explain the condition of the country. For several years the Cheyennes and Sioux had gradually become more and more hostile to the whites, and in the latter part of August, 1841, had had a rather severe engagement with a party of sixty men, under the command of Mr. Frapp, of St. Louis. The Indians lost eight or ten warriors, and the whites had their leader and four men killed. This fight took place on the waters of Snake River; and it was this party, on their return under Mr. Bridger, who had spread so much alarm among my people. In the course of the spring, two other small parties had been cut off by the Sioux—one on their return from the Crow nation, and the other among the Black Hills. The emigrants to Oregon and Mr. Bridger's party met here, a few days before our arrival. Divisions and misunderstandings had grown up among them; they were already somewhat disheartened by the fatigue of their long and wearisome journey, and the feet of their cattle had become so much worn as to be scarcely able to travel. In this situation, they were not likely to find encouragement in the hostile attitude of the Indians, and the new and unexpected difficulties which sprang up before them. They were told that the country was entirely swept of grass, and that few or no buffalo were to be found on their line of route; and, with their weakened animals, it would be impossible for them to transport their heavy wagons over the mountains. Under these circumstances, they disposed of their wagons and cattle at the forts; selling them at prices they had paid in the States, and taking in exchange

coffee and sugar at one dollar a pound, and miserable, worn-out horses, which died before they reached the mountains. Mr. Boudeau informed me that he had purchased thirty, and the lower fort eighty head of fine cattle, some of them of the Durham breed. Mr. Fitzpatrick, whose name and high reputation are familiar to all who interest themselves in the history of this country, had reached Laramie in company with Mr. Bridger; and the emigrants were fortunate enough to obtain his services to guide them as far as the British post of Fort Hall, about two hundred and fifty miles beyond the South Pass of the mountains. They had started for this post on the 4th of July, and immediately after their departure, a war party of three hundred and fifty braves set out upon their trail. As their principal chief or partisan had lost some relations in the recent fight, and had sworn to kill the first whites on his path, it was supposed that their intention was to attack the party, should a favorable opportunity offer; or, if they were foiled in their principal object by the vigilance of Mr. Fitzpatrick, content themselves with stealing horses and cutting off stragglers. These had been gone but a few days previous to our arrival.

The effect of the engagement with Mr. Frapp had been greatly to irritate the hostile spirit of the savages; and immediately subsequent to that event, the Gros Ventre Indians had united with the Oglallahs and Cheyennes, and taken the field in great force—so far as I could ascertain, to the amount of eight hundred lodges. Their object was to make an attack on a camp of Snake and Crow Indians, and a body of about one hundred whites, who had made a rendezvous somewhere in the Green river valley, or on the Sweet Water. After spending some time in buffalo hunting in the neighborhood of the Medicine Bow mountain, they were to cross over to the Green river waters, and return to Laramie by way of the South Pass and the Sweet Water valley. According to the calculation of the Indians, Mr. Boudeau informed me they were somewhere near the head of the Sweet Water. I subsequently learned that the party led by Mr. Fitzpatrick were overtaken by their pursuers near Rock Independence, in the valley of the Sweet Water; but his skill and resolution saved them from surprise; and, small as his force was, they did not venture to attack him openly. Here they lost one of their party by an accident, and continuing up the valley, they came suddenly upon the large village. From these they met with a doubtful reception. Long residence and familiar acquaintance had given to Mr. Fitzpatrick great personal influence among them, and a portion of them were disposed to let him pass quietly; but by far the greater number were inclined to hostile measures; and the chiefs spent the whole of one night, during which they kept the little party in the midst of them, in council, debating the question of attacking them the next day; but the influence of "the Broken Hand," as they called Mr. Fitzpatrick, (one of his hands having been shattered by the bursting of a gun,) at length prevailed, and obtained for them an unmolested passage; but they sternly assured him that this path was no longer open, and that any party of the whites which should hereafter be found upon it would meet with certain destruction. From all that I have been able to learn, I have no doubt that the emigrants owe their lives to Mr. Fitzpatrick.

Thus it would appear that the country was swarming with scattered war parties; and when I heard, during the day, the various contradictory and exaggerated rumors which were incessantly repeated to them, I was not surprised that so much alarm prevailed among my men. Carson, one of the best and most experienced mountaineers, fully supported the opinion given by Bridger of the dangerous state of the country, and openly expressed his conviction that we could not escape without some sharp encounters with the Indians. In addition to this, he made his will; and among the circumstances which were constantly occurring to increase their alarm, this was most unfortunate; and I found that a number of my party had become so much intimidated, that they had requested to be discharged at this place. I dined to-day at Fort Platte, which has been mentioned as situated at the junction of Laramie river with the Nebraska. Here I heard confirmation of the statements given above. The party of warriors, which had started a few days since on the trail of the emigrants, was expected back in fourteen days, to join the village with which their families and the old men had remained. The arrival of the latter was hourly expected; and some Indians have just come in who had left them on the Laramie fork, about twenty miles above. Mr. Bissonette, one of the traders belonging to Fort Platte, urged the propriety of taking with me an interpreter and two or three old men of the village; in which case he thought there would be little or no hazard in encountering any of the war parties. The principal danger was in being attacked before they should know who we were.

They had a confused idea of the numbers and power of our people, and dreaded to bring upon themselves the military force of the United States. This gentleman, who spoke the language fluently, offered his services to accompany me as far as the Red Buttes. He was desirous to join the large party on its return, for purposes of trade, and it would suit his views, as well as my own, to go with us to the Buttes; beyond which point it would be impossible to prevail on a Sioux to venture, on account of their fear of the Crows. From Fort Laramie to the Red Buttes, by the ordinary road, is one hundred and thirty-five miles; and, though only on the threshold of danger, it seemed better to secure the services of an interpreter for the partial distance, than to have none at all.

So far as frequent interruption from the Indians would allow, we occupied ourselves in making some astronomical calculations, and bringing the general map to this stage of our journey; but the tent was generally occupied by a succession of our ceremonious visitors. Some came for presents, and others for information of our object in coming to the country; now and then, one would dart up to the tent on horseback, jerk off his trappings, and stand silently at the door, holding his horse by the halter, signifying his desire to trade. Occasionally a savage would stalk in with an invitation to a feast of honor, a dog feast, and deliberately sit down and wait quietly until I was ready to accompany him. I went to one; the women and children were sitting outside the lodge, and we took our seats on buffalo robes spread around. The dog was in a large pot over the fire, in the middle of the lodge, and immediately on our arrival

was dished up in large wooden bowls, one of which was handed to each. The flesh appeared very glutinous, with something of the flavor and appearance of mutton. Feeling something move behind me, I looked round and found that I had taken my seat among a litter of fat young puppies. Had I been nice in such matters, the prejudices of civilization might have interfered with my tranquility; but, fortunately, I am not of delicate nerves, and continued quietly to empty my platter.

The weather was cloudy at evening, with a moderate south wind, and the thermometer at six o'clock 85°. I was disappointed in my hope of obtaining an observation of an occultation, which took place about mid night. The moon brought with her heavy banks of clouds, through which she scarcely made her appearance during the night.

The morning of the 18th was cloudy and calm, the thermometer at six o'clock at 64°. About nine, with a moderate wind from the west, a storm of rain came on, accompanied by sharp thunder and lightning, which lasted about an hour. During the day the expected village arrived, consisting principally of old men, women, and children. They had a considerable number of horses, and large troops of dogs. Their lodges were pitched near the fort, and our camp was constantly crowded with Indians of all sizes, from morning until night, at which time some of the soldiers generally came to drive them all off to the village. My tent was the only place which they respected. Here only came the chiefs and men of distinction, and generally one of them remained to drive away the women and children. The numerous strange instruments, applied to still stranger uses, excited awe and admiration among them; and those which I used in talking with the sun and stars they looked upon with especial reverence, as mysterious things of "great medicine."

During our stay here, the men had been engaged in making numerous repairs, arranging pack-saddles, and otherwise preparing for the chances of a rough road and mountain travel. All things of this nature being ready, I gathered them around me in the evening, and told them that "I had determined to proceed the next day. They were all well armed. I had engaged the services of Mr. Bissonette as interpreter, and had taken, in the circumstances, every possible means to ensure our safety. In the rumors we had heard, I believed there was much exaggeration; that they were men accustomed to this kind of life and to the country; and that these were the dangers of every-day occurrence, and to be expected in the ordinary course of their service. They had heard of the unsettled condition of the country before leaving St. Louis, and therefore could not make it a reason for breaking their engagements. Still, I was unwilling to take with me, on a service of some certain danger, men on whom I could not rely; and I had understood that there were among them some who were disposed to cowardice, and anxious to return; they had but to come forward at once, and state their desire, and they would be discharged, with the amount due to them for the time they had served." To their honor be it said, there was but one among them who had the face to come forward and avail himself of the permission. I asked him some few questions, in order to expose him to the ridicule of the men, and let him go. The day after our departure, he engaged himself to one

of the forts, and set off with a party to the Upper Missouri. I did not think that the situation of the country justified me in taking our young companions, Messrs. Brant and Benton, along with us. In case of misfortune, it would have been thought, at the least, an act of great imprudence; and therefore, though reluctantly, I determined to leave them. Randolph had been the life of the camp, and the "*petit garçon*" was much regretted by the men, to whom his buoyant spirits had afforded great amusement. They all, however, agreed in the propriety of leaving him at the fort, because, as they said, he might cost the lives of some of the men in a fight with the Indians.

We were ready to depart; the tents were struck, the mules geared up, and our horses saddled, and we walked up to the fort to take the *stirrup cup* with our friends in an excellent home-brewed preparation. While thus pleasantly engaged, seated in one of the little cool chambers, at the door of which a man had been stationed to prevent all intrusion from the Indians, a number of chiefs, several of them powerful, fine-looking men, forced their way into the room in spite of all opposition. Handing me the following letter, they took their seats in silence:

[TRANSLATION.]

"FORT PLATTE, July 21, 1842.

"MR. FREMONT:—The chiefs having assembled in council, have just told me to warn you not to set out before the party of young men which is now out shall have returned. Furthermore, they tell me that they are very sure they will fire upon you as soon as they meet you. They are expected back in seven or eight days. Excuse me for making these observations, but it seems my duty to warn you of danger. Moreover, the chiefs who prohibit your setting out before the return of the warriors are the bearers of this note. "I am your obedient servant,

"JOSEPH BISSONETTE,

"By L. B. CHARTRAIN."

After reading this, I mentioned its purport to my companions; and, seeing that all were fully possessed of its contents, one of the Indians rose up, and, having first shaken hands with me, spoke as follows:

"You have come among us at a bad time. Some of our people have been killed, and our young men, who are gone to the mountains, are eager to avenge the blood of their relations, which has been shed by the whites. Our young men are bad, and, if they meet you, they will believe that you are carrying goods and ammunition to their enemies, and will fire upon you. You have told us that this will make war. We know that our great father has many soldiers and big guns, and we are anxious to have our lives. We love the whites, and are desirous of peace. Thinking of all these things, we have determined to keep you here until our warriors return. We are glad to see you among us. Our father is rich, and we expected that you would have brought presents to us—horses, guns, and blankets. We are glad to see you. We look upon your coming as the light which goes before the sun; for you will tell our great father that you have seen us, and that we are naked and poor, and

have nothing to eat; and he will send us all these things." He was followed by others to the same effect.

The observations of the savage appeared reasonable; but I was aware that they had in view only the present object of detaining me, and were unwilling I should go further into the country. In reply, I asked them, through the interpretation of Mr. Boudeau, to select two or three of their number to accompany us until we should meet their people—they should spread their robes in my tent, and eat at my table, and on their return I would give them presents in reward of their services. They declined, saying, that there were no young men left in the village, and that they were too old to travel so many days on horseback, and preferred now to smoke their pipes in the lodge, and let the warriors go on the war-path. Besides, they had no power over the young men and were afraid to interfere with them. In my turn I addressed them:

"You say that you love the whites; why have you killed so many already this spring? You say that you love the whites, and are full of many expressions of friendship to us; but you are not willing to undergo the fatigue of a few days' ride to save our lives. We do not believe what you have said, and will not listen to you. Whatever a chief among us tells his soldiers to do, is done. We are the soldiers of the great chief, your father. He has told us to come here and see this country, and all the Indians, his children. Why should we not go? Before we came, we heard that you had killed his people, and ceased to be his children; but we came among you peaceably, holding out our hands. Now we find that the stories we heard are not lies, and that you are no longer his friends and children. We have thrown away our bodies, and will not turn back. When you told us that your young men would kill us, you did not know that our hearts were strong, and you did not see the rifles which my young men carry in their hands. We are few, and you are many, and may kill us all; but there will be much crying in your villages, for many of your young men will stay behind, and forget to return with your warriors from the mountains. Do you think that our great chief will let his soldiers die, and forget to cover their graves? Before the snows melt again, his warriors will sweep away your villages as the fire does the prairie in the autumn. See! I have pulled down my *white houses*, and my people are ready: when the sun is ten paces higher, we shall be on the march. If you have anything to tell us, you will say it soon."

I broke up the conference, as I could do nothing with these people; and, being resolved to proceed, nothing was to be gained by delay. Accompanied by our hospitable friends, we returned to the camp. We had mounted our horses, and our parting salutations had been exchanged, when one of the chiefs (the Bull's Tail) arrived to tell me that they had determined to send a young man with us; and if I would point out the place of our evening camp, he should join us there. "The young man is poor," said he; "he has no horse, and expects you to give him one." I described to him the place where I intended to encamp, and, shaking hands, in a few minutes we were among the hills, and this last habitation of whites shut out from our view.

Our tents having been found too thin to protect ourselves and the instruments from the rains, which in this elevated country are attended with cold and unpleasant weather, I had procured from the Indians at Laramie a tolerably large lodge, about eighteen feet in diameter, and twenty feet in height. Such a lodge, when properly pitched, is, from its conical form, almost perfectly secure against the violent winds which are frequent in this region, and, with a fire in the centre, is a dry and warm shelter in bad weather. By raising the lower part, so as to permit the breeze to pass freely, it is converted into a pleasant summer residence, with the extraordinary advantage of being entirely free from mosquitoes, one of which I never saw in an Indian lodge. While we were engaged very unskillfully in erecting this, the interpreter, Mr. Bissonette, arrived, accompanied by the Indian and his wife. She laughed at our awkwardness, and offered her assistance, of which we were frequently afterwards obliged to avail ourselves, before the men acquired sufficient expertness to pitch it without difficulty.

With the change in the geological formation on leaving Fort Laramie, the whole face of the country has entirely altered its appearance. Eastward of that meridian, the principal objects which strike the eye of a traveler are the absence of timber, and the immense expanse of prairie, covered with the verdure of rich grasses, and highly adapted for pasturage. Wherever they are not disturbed by the vicinity of man, large herds of buffalo give animation to this country. Westward of Laramie river, the region is sandy, and apparently sterile; and the place of the grass is usurped by the *artemesia* and other odoriferous plants, to whose growth the sandy soil and dry air of this elevated region seem highly favorable.

One of the prominent characteristics in the face of the country is the extraordinary abundance of the *artemesias*. They grow everywhere — on the hills, and over the river bottoms, in tough, twisted, wiry clumps; and, wherever the beaten track was left, they rendered the progress of the carts rough and slow. As the country increased in elevation on our advance to the west, they increased in size; and the whole air is strongly impregnated and saturated with the odor of camphor and spirits of turpentine which belongs to this plant. This climate has been found very favorable to the restoration of health, particularly in cases of consumption; and possibly the respiration of air so highly impregnated with aromatic plants may have some influence.

On the 23d the scouts came galloping in with the alarm of Indians. We turned in immediately towards the river, which here had a steep, high bank, where we formed with the carts a very close barricade, resting on the river, within which the animals were strongly hobbled and picketed. The guns were discharged and reloaded, and men thrown forward under cover of the bank, in the direction by which the Indians were expected. Our interpreter, who, with the Indian, had gone to meet them, came in, in about ten minutes, accompanied by two Sioux. They looked sulky, and we could obtain from them only some confused information. We learned that they belonged to the party which had been on the trail of the emigrants, whom they had overtaken at Rock Independence, on

the Sweet Water. Here the party had disagreed, and came nigh fighting among themselves. One portion were desirous of attacking the whites, but the others were opposed to it; and finally they had broken up into small bands, and dispersed over the country. The greatest portion of them had gone over into the territory of the Crow Indians. The remainder were returning down the Platte, in scattered parties of ten and twenty; and those whom we had encountered belonged to those who had advocated an attack on the emigrants. Several of the men suggested shooting them on the spot; but I promptly discountenanced any such proceeding. They further informed me that buffalo were very scarce, and little or no grass to be found. There had been no rain, and innumerable quantities of grasshoppers had destroyed the grass. The insects had been so numerous since leaving Fort Laramie, that the ground seemed alive with them; and in walking, a little moving cloud preceded our footsteps. This was bad news. No grass, no buffalo—food for neither horse nor man. I gave them some plugs of tobacco, and they went off, apparently well satisfied to be clear of us; for my men did not look upon them very lovingly, and they glanced suspiciously at our warlike preparations, and the little ring of rifles which surrounded them. They were evidently in a bad humor, and shot one of their horses when they had left us a short distance.

We made the next day twenty-two miles, and encamped on the right bank of the Platte, where a handsome meadow afforded tolerably good grass. There were the remains of an old fort here, thrown up in some sudden emergency, and on the opposite side was a picturesque bluff of ferruginous sandstone. There was a handsome grove a little above, and scattered groups of trees bordered the river. Buffalo made their appearance this afternoon, and the hunters came in, shortly after we had encamped, with three fine cows. The night was fine, and observations gave for the latitude of the camp, $42^{\circ} 47' 40''$.

We made but thirteen miles next day, and encamped about noon in a pleasant grove on the right bank. Low scaffolds were erected, upon which the meat was laid, cut up into thin strips, and small fires kindled below. Our object was to profit by the vicinity of the buffalo, to lay in a stock of provisions for ten or fifteen days. In the course of the afternoon the hunters brought in five or six cows, and all hands were kept busily employed in preparing the meat, to the drying of which the guard attended during the night. Our people had recovered their gayety, and the busy figures around the blazing fires gave a picturesque air to the camp. A very serious accident occurred this morning, in the breaking of one of the barometers. These had been the object of my constant solicitude, and, as I had intended them principally for mountain service, I had used them as seldom as possible, taking them always down at night, and on the occurrence of storms, in order to lessen the chances of being broken. I was reduced to one, a standard barometer of Troughton's construction. This I determined to preserve, if possible.

Four miles beyond the ford of the Platte Indians were discovered again; and I halted while a party were sent forward to ascertain who they were. In a short time they returned, accompanied by a number of

Indians of the Oglallah band of Sioux. From them we received some interesting information. They had formed part of the great village, which they informed us had broken up, and was on its way home. The greater part of the village, including the Arapahoes, Cheyennes, and Oglallahs, had crossed the Platte eight or ten miles below the mouth of the Sweet Water, and were now behind the mountains to the south of us, intending to regain the Platte by way of Deer Creek. They had taken this unusual route in search of grass and game. They gave us a very discouraging picture of the country. The great drought, and the plague of grasshoppers, had swept it so that scarce a blade of grass was to be seen, and there was not a buffalo to be found in the whole region. Their people, they further said, had been nearly starved to death, and we would find their road marked by lodges, which they had thrown away in order to move more rapidly, and by the carcasses of the horses which they had eaten, or which had perished by starvation. Such was the prospect before us.

When he had finished the interpretation of these things, Mr. Bissonette immediately rode up to me, and urgently advised that I should entirely abandon the further prosecution of my exploration. "The best advice I can give you, is to turn back at once." It was his own intention to return, as we had now reached the point to which he had engaged to attend me. In reply, I called up my men, and communicated to them my fixed determination to proceed to the end of the enterprise on which I had been sent; but as the situation of the country gave me some reason to apprehend that it might be attended with an unfortunate result to some of us, I would leave it optional with them to continue with me or to return.

Among them were some five or six who I knew would remain. We had still ten days' provisions; and should no game be found, when this stock was expended, we had our horses and mules, which we could eat when other means of subsistence failed. But not not a man flinched from the undertaking. "We'll eat the mules," said Basil Lajeunesse; and thereupon we shook hands with our interpreter and his Indians, and parted. With them I sent back one of my men, Dumes, whom the effects of an old wound in the leg rendered incapable of continuing the journey on foot, and his horse seemed on the point of giving out. Having resolved to disencumber ourselves immediately of every thing not absolutely necessary to our future operations, I turned directly in towards the river, and encamped on the left bank, a little above the place where our council had been held, and where a thick grove of willows offered a suitable spot for the object I had in view.

The carts having been discharged, the covers and wheels were taken off, and, with the frames, carried into some low places, among the willows, and concealed in the dense foliage in such a manner that the glitter of the iron-work might not attract the observation of some straggling Indian. In the sand, which had been blown up into waves among the willows, a large hole was then dug, ten feet square and six feet deep. In the mean time, all our effects had been spread out upon the ground, and whatever was designed to be carried along with us separated and laid

aside, and the remaining part carried to the hole and carefully covered up. As much as possible, all traces of our proceedings were obliterated, and it wanted but a rain to render our *cache* safe beyond discovery. All the men were now set at work to arrange the pack-saddles and make up the packs.

We saw numerous herds of mountain sheep, and frequently heard the volley of rattling stones which accompanied their rapid descent down the steep hills. Their flesh is much esteemed by the hunters, and has very much the flavor of the Alleghany mountain sheep. I have frequently seen the horns of this animal three feet long and seventeen inches in circumference at the base, weighing eleven pounds. But two or three of these were killed by our party, and of these the horns were small. The use of these horns seems to be to protect the animal's head in pitching down precipices to avoid pursuing wolves—their only safety being in places where they cannot be followed. The bones are very strong and solid, the marrow occupying but a very small portion of the bone in the leg, about the thickness of a rye straw. The hair is short, resembling the winter color of our common deer, which it nearly approaches in size and appearance. Except in the horns, it has no resemblance whatever to the goat.

We left the course of the Platte to cross over to the Sweet Water. Our way, for a few miles, lay up the sandy bed of a dry creek, in which I found several interesting plants. Leaving this, we wended our way to the summit of the hills, of which the peaks are here eight hundred feet above the Platte, bare and rocky. A long and gradual slope led from these hills to the Sweet Water, which we reached. I made an early encampment here, in order to give the hunters an opportunity to procure a supply from several bands of buffalo, which made their appearance in the valley near by. The stream is about sixty feet wide, and at this time twelve to eighteen inches deep, with a very moderate current.

The hunters went ahead next morning, as buffalo appeared tolerably abundant, and I was desirous to secure a small stock of provisions; and we moved about seven miles up the valley, and encamped one mile below Rock Independence. This is an isolated granite rock, about six hundred and fifty yards long, and forty in height. Except in a depression of the summit, where a little soil supports a scanty growth of shrubs, with a solitary dwarf pine, it is entirely bare. Everywhere within six or eight feet of the ground, where the surface is sufficiently smooth, and in some places sixty or eighty feet above, the rock is inscribed with the names of travelers. Many a name famous in the history of this country, and some well known to science, are to be found mixed among those of the traders and travelers for pleasure and curiosity, and of missionaries among the savages. Some of these have been washed away by the rain, but the greater number are still very legible.

Five miles above Rock Independence we came to a place called the Devil's Gate, where the Sweet Water cuts through the point of a granite ridge. The length of the passage is about three hundred yards, and the width thirty-five yards. The walls of rock are vertical, and about four hundred feet in height; and the stream in the gate is almost entirely

choked up by masses which have fallen from above. In the wall, on the right bank, is a dike of trap-rock, cutting through a fine-grained gray granite.

The country here is exceedingly picturesque. On either side of the valley, which is five miles broad, the mountains rise to the height of twelve and fifteen hundred or two thousand feet. On the south side, the range appears to be timbered, and to-night is luminous with fires—probably the work of the Indians, who have just passed through the valley. On the north, broken and granite masses rise abruptly from the green sward of the river, terminating in a line of broken summits. Except in the crevices of the rock, and here and there on a ledge or bench of the mountain, where a few hardy pines have clustered together, these are perfectly bare and destitute of vegetation.

Among these masses, where there are sometimes isolated hills and ridges, green valleys open in upon the river, which sweeps the base of these mountains for thirty-six miles. Everywhere its deep verdure and profusion of beautiful flowers is in pleasing contrast with the sterile grandeur of rock and the barrenness of the sandy plain, which, from the right bank of the river, sweeps up to the mountain range that forms its southern boundary. The great evaporation on the sandy soil of this elevated plain, and the saline efflorescences which whiten the ground, and shine like lakes reflecting in the sun, make a soil totally unfit for cultivation.

As we rose from the bed of the creek on the 7th of August, the *snow* line of the mountains stretched gradually before us, the white peaks glittering in the sun. They had been hidden in the dark weather of the last few days, and it had been *snowing* on them, while it *rained* in the plains. We crossed a ridge, and again struck the Sweet Water—here a beautiful, swift stream, with a more open valley, timbered with beech and cottonwood. It now began to lose itself in the many small forks which makes its head; and we continued up the main stream until near noon, when we left it a few miles, to make our noon halt on a small creek among the hills, from which the stream issues by a small opening. Within was a beautiful grassy spot, covered with an open grove of large beech trees, among which I found several plants that I had not previously seen.

The afternoon was cloudy, with squalls of rain; but the weather became fine at sunset, when we again encamped on the Sweet Water, within a few miles of the **SOUTH PASS**.

Early in the morning we resumed our journey, the weather still cloudy, with occasional rain. Our general course was west, as I had determined to cross the dividing ridge by a bridle-path among the country more immediately at the foot of the mountains, and return by the wagon road, two and a half miles to the south of the point where the trail crosses.

About six miles from our encampment brought us to the summit. The ascent had been so gradual, that, with all the intimate knowledge possessed by Carson, who had made the country his home for seventeen years, we were obliged to watch very closely to find the place at which we had reached the culminating point. This was between two low hills,

rising on either hand fifty or sixty feet. When I looked back at them, from the foot of the immediate slope on the western plain, their summits appeared to be about one hundred and twenty feet above. From the impression on my mind at this time, and subsequently on our return, I should compare the elevation which we surmounted immediately at the Pass, to the ascent of the Capitol hill from the avenue, at Washington. It is difficult for me to fix positively the breadth of this Pass. From the broken ground where it commences, at the foot of the Wind River chain, the view to the southeast is over a champaign country, broken, at the distance of nineteen miles, by the Table Rock; which, with the other isolated hills in its vicinity, seem to stand on a comparative plain. This I judged to be its termination, the ridge recovering its rugged character with the Table Rock. It will be seen that it in no manner resembles the places to which the term is commonly applied—nothing of the gorge like character and winding ascents of the Alleghany passes in America; nothing of the Great St. Bernard and Simplon passes in Europe. Approaching it from the mouth of the Sweet Water, a sandy plain, one hundred and twenty miles long, conducts, by a gradual and regular ascent, to the summit, about seven thousand feet above the sea; and the traveler, without being reminded of any change by toilsome ascents, suddenly finds himself on the waters which flow to the Pacific ocean. By the route we had traveled, the distance from Fort Laramie is three hundred and twenty miles, or nine hundred and fifty from the mouth of the Kansas.

Continuing our march, we reached, in eight miles from the Pass, the Little Sandy, one of the tributaries of the Colorado, or Green River of the Gulf of California. The weather had grown fine during the morning, and we remained here the rest of the day, to dry our baggage and take some astronomical observations.

Aug. 10th.—The air at sunrise is clear and pure, and the morning extremely cold, but beautiful. A lofty snowy peak of the mountain is glittering in the first rays of the sun, which have not yet reached us. The long mountain wall to the east, rising two thousand feet abruptly from the plain, behind which we see the peaks, is still dark, and cuts clear against the glowing sky. A fog, just risen from the river, lies along the base of the mountain. A little before sunrise, the thermometer was at 35°, and at sunrise 33°. Water froze last night, and fires are very comfortable. The scenery becomes hourly more interesting and grand, and the view here is truly magnificent; but, indeed, it needs something to repay the long prairie journey of a thousand miles. The sun had shot above the wall, and makes a magical change. The whole valley is glowing and bright, and all the mountain peaks are gleaming like silver. Though these snow mountains are not the Alps, they have their own character of grandeur and magnificence, and doubtless will find pens and pencils to do them justice. In the scene before us, we feel how much wood improves a view. The pines on the mountain seemed to give it much additional beauty. I was agreeably disappointed in the character of the streams on this side of the ridge. Instead of the creeks, which description had led me to expect, I find bold, broad

streams, with three or four feet water, and a rapid current. The fork on which we are encamped is upwards of a hundred feet wide, timbered with groves or thickets of the low willow. We were now approaching the loftiest part of the Wind River chain; and I left the valley a few miles from our encampment, intending to penetrate the mountains as far as possible with the whole party. We were soon involved in very broken ground, among long ridges covered with fragments of granite. Winding our way up a long ravine, we came unexpectedly in view of a most beautiful lake, set like a gem in the mountains. The sheet of water lay transversely across the direction we had been pursuing; and, descending the steep, rocky ridge, where it was necessary to lead our horses, we followed its banks to the southern extremity. Here a view of the utmost magnificence and grandeur burst upon our eyes. With nothing between us and their feet to lessen the effect of the whole height, a grand bed of snow-capped mountains rose before us, pile upon pile, glowing in the bright light of an August day. Immediately below them lay the lake, between two ridges, covered with dark pines, which swept down from the main chain to the spot where we stood. Here, where the lake glittered in the open sunlight, its banks of yellow sand and the light foliage of aspen groves contrasted well with the gloomy pines. "Never before," said Mr. Preuss, "in this country or in Europe, have I seen such grand, magnificent rocks." I was so much pleased with the beauty of the place, that I determined to make the main camp here, where our animals would find good pasturage, and explore the mountains with a small party of men. Proceeding a little further, we came suddenly upon the outlet of the lake, where it found its way through a narrow passage between low hills. Dark pines which overhung the stream, and masses of rock, where the water foamed along, gave it much romantic beauty. Where we crossed, which was immediately at the outlet, it is two hundred and fifty feet wide, and so deep that with difficulty we were able to ford it. Its bed was an accumulation of rocks, boulders, and broad slabs, and large angular fragments, among which the animals fell repeatedly.

The current was very swift, and the water cold, and of a crystal purity. In crossing this stream, I met with a great misfortune in having my barometer broken. It was the only one. A great part of the interest of the journey for me was in the exploration of these mountains, of which so much had been said that was doubtful and contradictory; and now their snowy peaks rose majestically before me, and the only means of giving them authentically to science, the object of my anxious solicitude by night and day, was destroyed. We had brought this barometer in safety a thousand miles, and broke it almost among the snow of the mountains. The loss was felt by the whole camp—all had seen my anxiety, and aided me in preserving it. The height of these mountains, considered by many hunters and traders the highest in the whole range, had been a theme of constant discussion among them; and all had looked forward with pleasure to the moment when the instrument, which they believed to be as true as the sun, should stand upon the summits, and decide their disputes. Their grief was only inferior to my own.

The lake is about three miles long, and of very irregular width, and

apparently great depth, and is the head-water of the third New Fork, a tributary to Green river, the Colorado of the west. In the narrative I have called it Mountain Lake. I encamped on the north side, about three hundred and fifty yards from the outlet. This was the most western point at which I obtained astronomical observations, by which this place, called Bernier's encampment, is made in $110^{\circ} 08' 08''$ west longitude from Greenwich, and latitude $43^{\circ} 49' 49''$. The mountain peaks, as laid down, were fixed by bearings from this and other astronomical points. We had no other compass than the small ones used in sketching the country; but from an azimuth, in which one of them was used, the variation of the compass is 18° east. The correction made in our field-work by the astronomical observations indicates that this is a very correct observation.

As soon as the camp was formed, I set about endeavoring to repair my barometer. As I have already said, this was a standard cistern barometer, of Troughton's construction. The glass cistern had been broken about midway; but as the instrument had been kept in a proper position, no air had found its way into the tube, the end of which had always remained covered. I had with me a number of vials of tolerably thick glass, some of which were of the same diameter as the cistern, and I spent the day in slowly working on these, endeavoring to cut them of the requisite length; but, as my instrument was a very rough file, I invariably broke them. A groove was cut in one of the trees, where the barometer was placed during the night, to be out of the way of any possible danger, and in the morning I commenced again. Among the powder-horns in the camp, I found one which was very transparent, so that its contents could be almost as plainly seen as through glass. This I boiled and stretched on a piece of wood to the requisite diameter, and scraped it very thin, in order to increase to the utmost its transparency. I then secured it firmly in its place on the instrument, with strong glue made from a buffalo, and filled it with mercury, properly heated. A piece of skin, which had covered one of the vials, furnished a good pocket, which was well secured with strong thread and glue, and then the brass cover was screwed to its place. The instrument was left some time to dry; and when I reversed it, a few hours after, I had the satisfaction to find it in perfect order; its indications being about the same as on the other side of the lake before it had been broken. Our success in this little incident diffused pleasure throughout the camp; and we immediately set about our preparations for ascending the mountains.

As will be seen on reference to a map, on this short mountain chain are the head-waters of four great rivers on the continent, namely: the Colorado, Columbia, Missouri, and Platte rivers. It had been my design, after ascending the mountains, to continue our route on the western side of the range, and crossing through a pass at the northwestern end of the chain, about thirty miles from our present camp, return along the eastern slope, across the heads of the Yellowstone river, and join on the line to our station of August 7, immediately at the foot of the ridge. In this way, I should be enabled to include the whole chain, and its numerous waters, in my survey; but various considerations induced me, very reluctantly, to abandon this plan.

I was desirous to keep strictly within the scope of my instructions, and it would have required ten or fifteen additional days for the accomplishment of this object; our animals had become very much worn out with the length of the journey; game was very scarce; and, though it does not appear in the course of the narrative, (as I have avoided dwelling upon trifling incidents not connected with the objects of the expedition,) the spirits of the men had been much exhausted by the hardships and privations to which they had been subjected. Our provisions had well-nigh all disappeared. Bread had been long out of the question; and of all our stock, we had remaining two or three pounds of coffee, and a small quantity of macaroni, which had been husbanded with great care for the mountain expedition we were about to undertake. Our daily meal consisted of dry buffalo meat, cooked in tallow; and, as we had not dried this with Indian skill, part of it was spoiled; and what remained of good, was as hard as wood, having much the taste and appearance of so many pieces of bark. Even of this, our stock was rapidly diminishing in a camp which was capable of consuming two buffaloes in every twenty-four hours. These animals had entirely disappeared; and it was not probable that we should fall in with them again until we returned to the Sweet Water.

Our arrangements for the ascent were rapidly completed. We were in a hostile country, which rendered the greatest vigilance and circumspection necessary. The pass at the north end of the mountain was greatly infested by Blackfeet, and immediately opposite was one of their forts, on the edge of a little thicket, two or three hundred feet from our encampment. We were posted in a grove of beech, on the margin of the lake, and a few hundred feet long, with a narrow *prairillon* on the inner side, bordered by the rocky ridge. In the upper end of this grove we cleared a circular space about forty feet in diameter, and, with the felled timber, and interwoven branches, surrounded it with a breastwork five feet in height. A gap was left for a gate on the inner side, by which the animals were to be driven in and secured, while the men slept around the little work. It was half hidden by the foliage, and garrisoned by twelve resolute men, would have set at defiance any band of savages which might chance to discover them in the interval of our absence. Fifteen of the best mules, with fourteen men, were selected for the mountain party. Our provisions consisted of dried meat for two days, with our little stock of coffee and some macaroni. In addition to the barometer and thermometer, I took with me a sextant and spy-glass, and we had of course our compasses. In charge of the camp I left Bernier, one of my most trustworthy men, who possessed the most determined courage.

Early in the morning we left the camp, fifteen in number, well armed, of course, and mounted on our best mules. A pack-animal carried our provisions, with a coffee-pot and kettle, and three or four tin cups. Every man had a blanket strapped over his saddle, to serve for his bed, and the instruments were carried by turns on their backs. We entered directly on rough and rocky ground; and, just after crossing the ridge, had the good fortune to shoot an antelope. We heard the roar, and had a glimpse of a waterfall as we rode along, and, crossing in our way two

fine streams, tributary to the Colorado, in about two hours' ride we reached the top of the first row or range of the mountains. Here, again, a view of the most romantic beauty met our eyes. It seemed as if, from the vast expanse of uninteresting prairie we had passed over, Nature had collected all her beauties together in one chosen place. We were overlooking a deep valley, which was entirely occupied by three lakes, and from the brink to the surrounding ridges rose precipitously five hundred and a thousand feet, covered with the dark green of the balsam pine, relieved on the border of the lake with the light foliage of the aspen. They all communicated with each other, and the green of the waters, common to mountain lakes of great depth, showed that it would be impossible to cross them. The surprise manifested by our guides when these impassable obstacles suddenly barred our progress, proved that they were among the hidden treasures of the place, unknown even to the wandering trappers of the region. Descending the hill, we proceeded to make our way along the margin to the southern extremity. A narrow strip of angular fragments of rock sometimes afforded a rough pathway for our mules, but generally we rode along the shelving side, occasionally scrambling up, at a considerable risk of tumbling back into the lake.

The slope was frequently 60° ; the pines grew densely together, and the ground was covered with the branches and trunks of trees. The air was fragrant with the odor of the pines; and I realized this delightful morning the pleasure of breathing that mountain air which makes a constant theme of the hunter's praise, and which now made us feel as if we had all been drinking some exhilarating gas. The depths of this unexplored forest were a place to delight the heart of a botanist. There was a rich undergrowth of plants, and numerous gay-colored flowers in brilliant bloom. We reached the outlet at length, where some freshly-barked willows that lay in the water showed that beaver had been recently at work. There were some small brown squirrels jumping about in the pines, and a couple of large mallard ducks swimming about in the stream.

The hills on this southern end were low, and the lake looked like a mimic sea, as the waves broke on the sandy beach in the force of a strong breeze. There was a pretty open spot, with fine grass for our mules; and we made our noon halt on the beach, under the shade of some large hemlocks. We resumed our journey after a halt of about an hour making our way up the ridge on the western side of the lake. In search of smoother ground, we rode a little inland; and, passing through grove of aspen, soon found ourselves among the pines. Emerging from these we struck the summit of the ridge above the upper end of the lake.

We had reached a very elevated point, and in the valley below, and among the hills, were a number of lakes of different levels; some two or three hundred feet above others, with which they communicated by foaming torrents. Even to our great height the roar of the cataracts came up, and we could see them leaping down in lines of snowy foam. From the scene of busy waters, we turned abruptly into the stillness of a forest where we rode among the open bolls of the pines, over a lawn of verdant grass, having strikingly the air of cultivated grounds. This led us, after a time, among masses of rock, which had no vegetable earth but in be

lows and crevices, though still the pine forest continued. Towards evening we reached a defile, or rather a hole in the mountains, entirely shut in by dark pine covered rocks.

A small stream, with scarcely perceptible current, flowed through a level bottom of perhaps eighty yards width, where the grass was saturated with water. Into this the mules were turned, and were neither hobbled nor picketed during the night, as the fine pasturage took away all temptation to stray; and we made our bivouac in the pines. The surrounding masses were all of granite. While supper was being prepared, I set out on an excursion in the neighborhood, accompanied by one of my men. We wandered about among the crags and ravines until dark, richly repaid for our walk by a fine collection of plants, many of them in full bloom. Ascending a peak to find the place of our camp, we saw that the little defile in which we lay, communicated with the long green valley of some stream, which, here locked up in the mountains, far away to the south, found its way in a dense forest to the plains.

Looking along its upward course, it seemed to conduct, by a smooth, gradual slope, directly towards the peak, which, from long consultation as we approached the mountain, we had decided to be the highest of the range. Pleased with the discovery of so fine a road for the next day, we hastened down to the camp, where we arrived just in time for supper. Our table-service was rather scant; and we held the meat in our hands, and clean rocks made good plates, on which we spread our macaroni. Among all the strange places on which we had occasion to encamp during our long journey, none have left so vivid an impression on my mind as the camp of this evening. The disorder of the masses which surrounded us—the little hole through which we saw the stars over head—the dark pines where we slept—and the rocks lit up with the glow of our fires, made a night picture of very wild beauty.

The morning was bright and pleasant, just cool enough to make exercise agreeable, and we soon entered the defile I had seen the preceding day. It was smoothly carpeted with soft grass, and scattered over with groups of flowers, of which yellow was the predominant color. Sometimes we were forced, by an occasional difficult pass, to pick our way on a narrow ledge along the side of the defile, and the mules were frequently on their knees; but these obstructions were rare, and we journeyed on in the sweet morning air, delighted at our good fortune in having found such a beautiful entrance to the mountains. This road continued for about three miles, when we suddenly reached its termination in one of the grand views which, at every turn, meet the traveler in this magnificent region. Here the defile up which we had traveled opened out into a small lawn, where, in a little lake, the stream had its source.

There were some fine *asters* in bloom, but all the flowering plants appeared to seek the shelter of the rocks, and to be of lower growth than below, as if they loved the warmth of the soil, and kept out of the way of the winds. Immediately at our feet, a precipitous descent led to a confusion of defiles, and before us rose the mountains. It is not by the splendor of far-off views, which have lent such a glory to the Alps, that these impress the mind; but by a gigantic disorder of enormous masses,

and a savage sublimity of naked rock, in wonderful contrast with innumerable green spots of a rich floral beauty, shut up in their stern recesses. Their wildness seems well suited to the character of the people who inhabit the country.

I determined to leave our animals here and make the rest of our way on foot. The peak appeared so near, that there was no doubt of our returning before night; and a few men were left in charge of the mules, with our provisions and blankets. We took with us nothing but our arms and instruments, and, as the day had become warm, the greater part left our coats. Having made an early dinner, we started again. We were soon involved in the most ragged precipices, nearing the central chain very slowly, and rising but little. The first ridge hid a succession of others; and when, with great fatigue and difficulty, we had climbed up five hundred feet, it was but to make an equal descent on the other side; all these intervening places were filled with small deep lakes, which met the eye in every direction, descending from one level to another, sometimes under bridges formed by huge fragments of granite, beneath which was heard the roar of the water. These constantly obstructed our path, forcing us to make long *détours*; frequently obliged to retrace our steps, and frequently falling among the rocks. Maxwell was precipitated towards the face of a precipice, and saved himself from going over by throwing himself flat on the ground. We clambered on, always expecting, with every ridge that we crossed, to reach the foot of the peaks, and always disappointed, until about four o'clock, when, pretty well worn out, we reached the shore of a little lake, in which was a rocky island. We remained here a short time to rest, and continued on around the lake, which had in some places a beach of white sand, and in others was bound with rocks, over which the way was difficult and dangerous, as the water from innumerable springs made them very slippery.

By the time we had reached the further side of the lake, we found ourselves all exceedingly fatigued, and, much to the satisfaction of the whole party, we encamped. The spot we had chosen was a broad flat rock, in some measure protected from the winds by the surrounding crags, and the trunks of fallen pines afforded us bright fires. Near by was a foaming torrent, which tumbled into the little lake about one hundred and fifty feet below us, and which, by way of distinction, we have called Island Lake. We had reached the upper limit of the piney region; as, above this point, no tree was to be seen, and patches of snow lay everywhere around us, on the cold sides of the rocks. The flora of the region we had traversed since leaving our mules, was extremely rich, and, among the characteristic plants, the scarlet flowers of the *dodecatheon dentatum* everywhere met the eye, in great abundance. A small green ravine, on the edge of which we were encamped, was filled with a profusion of alpine plants, in brilliant bloom. From barometrical observations, made during our three days' sojourn at this place, its elevation above the Gulf of Mexico is 10,000 feet. During the day, we had seen no sign of animal life; but among the rocks here, we heard what was supposed to be the bleat of a young goat, which we searched for with hungry activity, and found to proceed from a small animal of a gray color, with short ears and no

tail—probably the Siberian squirrel. We saw a considerable number of them, and, with the exception of a small bird like a sparrow, it is the only inhabitant of this elevated part of the mountains. On our return, we saw, below this lake, large flocks of the mountain-goat. We had nothing to eat to-night. Lajeunesse, with several others, took their guns and sallied out in search of a goat; but returned unsuccessful. At sunset, the barometer stood at 20·522; the attached thermometer 50°. Here we had the misfortune to break our thermometer, having now only that attached to the barometer. I was taken ill shortly after we had encamped, and continued so until late in the night, with violent headache and vomiting. This was probably caused by the excessive fatigue I had undergone, and want of food, and perhaps, also, in some measure, by the rarity of the air. The night was cold, as a violent gale from the north had sprung up at sunset, which entirely blew away the heat of the fires. The cold, and our granite beds, had not been favorable to sleep, and we were glad to see the face of the sun in the morning. Not being delayed by any preparation for breakfast, we set out immediately.

On every side, as we advanced, was heard the roar of waters, and of a torrent, which we followed up a short distance, until it expanded into a lake about one mile in length. On the northern side of the lake was a bank of ice, or rather of snow covered with a crust of ice. Carson had been our guide into the mountains, and, agreeably to his advice, we left this little valley, and took to the ridges again, which we found extremely broken, and where we were again involved among precipices. Here were ice-fields; among which we were all dispersed, seeking each the best path to ascend the peak. Mr. Preuss attempted to walk along the upper edge of one of these fields, which sloped away at an angle of about twenty degrees; but his feet slipped from under him, and he went plunging down the plain. A few hundred feet below, at the bottom, were some fragments of sharp rock, on which he landed; and, though he turned a couple of somersets, fortunately received no injury beyond a few bruises. Two of the men, Clement Lambert and Descoteaux, had been taken ill, and lay down on the rocks, a short distance below; and at this point I was attacked with headache and giddiness, accompanied by vomiting, as on the day before. Finding myself unable to proceed, I sent the barometer over to Mr. Preuss, who was in a gap two or three hundred yards distant, desiring him to reach the peak if possible, and take an observation there. He found himself unable to proceed further in that direction, and took an observation, where the barometer stood at 19·401; attached thermometer 50°, in the gap. Carson, who had gone over to him, succeeded in reaching one of the snowy summits of the main ridge, whence he saw the peak towards which all our efforts had been directed, towering eight or ten hundred feet into the air above him. In the mean time, finding myself grow rather worse than better, and doubtful how far my strength would carry me, I sent Basil Lajeunesse, with four men, back to the place where the mules had been left.

We were now better acquainted with the topography of the country, and I directed him to bring back with him, if it were in any way possible, four or five mules, with provisions and blankets. With me were

Maxwell and Ayer; and after we had remained nearly an hour on the rock, it became so unpleasantly cold, though the day was bright, that we set out on our return to the camp, at which we all arrived safely, straggling in one after the other. I continued ill during the afternoon, but became better towards sundown, when my recovery was completed by the appearance of Basil and four men, all mounted. The men who had gone with him had been too much fatigued to return, and were relieved by those in charge of the horses; but in his powers of endurance Basil resembled more a mountain-goat than a man. They brought blankets and provisions, and we enjoyed well our dried meat and a cup of good coffee. We rolled ourselves up in our blankets, and, with our feet turned to a blazing fire, slept soundly until morning.

15th.—It had been supposed that we had finished with the mountains; and the evening before it had been arranged that Carson should set out at daylight, and return to breakfast at the Camp of the Mules, taking with him all but four or five of the men, who were to stay with me and bring back the mules and instruments. Accordingly, at the break of day they set out. With Mr. Pruess and myself remained Basil Lajeunesse, Clement Lambert, Janisse, and Descoteaux. When we had secured strength for the day by a hearty breakfast, we covered what remained, which was enough for one meal, with rocks, in order that it might be safe from any marauding bird, and, saddling our mules, turned our faces once more towards the peaks. This time we determined to proceed quietly and cautiously, deliberately resolved to accomplish our object if it were within the compass of human means. We were of opinion that a long defile which lay to the left of yesterday's route would lead us to the foot of the main peak. Our mules had been refreshed by the fine grass in the little ravine at the Island camp, and we intended to ride up the defile as far as possible, in order to husband our strength for the main ascent. Though this was a fine passage, still it was a defile of the most rugged mountains known, and we had many a rough and steep slippery place to cross before reaching the end. In this place the sun rarely shone; snow lay along the border of the small stream which flowed through it, and occasional icy passages made the footing of the mules very insecure, and the rocks and ground were moist with the trickling waters in this spring of mighty rivers. We soon had the satisfaction to find ourselves riding along the huge wall which forms the central summits of the chain. There at last it rose by our sides, a nearly perpendicular wall of granite, terminating 2,000 to 3,000 feet above our heads in a serrated line of broken, jagged cones. We rode on until we came almost immediately below the main peak, which I denominated the Snow Peak, as it exhibited more snow to the eye than any of the neighboring summits. Here were three small lakes of a green color, each, perhaps, of a thousand yards in diameter, and apparently very deep. These lay in a kind of chasm; and, according to the barometer, we had attained but a few hundred feet above the Island lake. The barometer here stood at 20-450, attached thermometer 70°.

We managed to get our mules up to a little bench about a hundred feet above the lakes, where there was a patch of good grass, and turned

them loose to graze. During our rough ride to this place, they had exhibited a wonderful sure-footedness. Parts of the defile were filled with angular, sharp fragments of rock, three or four and eight or ten foot cube; and among these they had worked their way, leaping from one narrow point to another, rarely making a false step, and giving us no occasion to dismount. Having divested ourselves of every unnecessary encumbrance, we commenced the ascent. This time, like experienced travelers, we did not press ourselves, but climbed leisurely, sitting down as soon as we found breath beginning to fail. At intervals we reached places where a number of springs gushed from the rocks, and about 1,800 feet above the lakes came to the snow line. From this point our progress was uninterrupted climbing. Hitherto I had worn a pair of thick moccasins, with soles of *parfleche*, but here I put on a light, thin pair, which I had brought for the purpose, as now the use of our toes became necessary to a further advance. I availed myself of a sort of comb of the mountain, which stood against the wall like a buttress, and which the wind and the solar radiation, joined to the steepness of the smooth rock, had kept almost entirely free from snow. Up this I made my way rapidly. Our cautious method of advancing at the outset had spared my strength; and, with the exception of a slight disposition to headache, I felt no remains of yesterday's illness. In a few minutes we reached a point where the buttress was overhanging, and there was no other way of surmounting the difficulty than by passing around one side of it, which was the face of a verticle precipice of several hundred feet.

Putting hands and feet in the crevices between the blocks, I succeeded in getting over it, and, when I reached the top, found my companions in a small valley below. Descending to them, we continued climbing, and in a short time reached the crest. I sprang upon the summit, and another step would have precipitated me into an immense snow-field five hundred feet below. To the edge of this field was a sheer icy precipice; and then, with a gradual fall, the field sloped off for about a mile, until it struck the foot of another lower ridge. I stood on a narrow crest, about three feet in width, with an inclination of about 20° N. 50° E. As soon as I had gratified the first feeling of curiosity, I descended, and each man ascended in his turn; for I would only allow one at a time to mount the unstable and precarious slab, which it seemed a breath would hurl into the abyss below. We mounted the barometer in the snow of the summit, and, fixing a ramrod in a crevice, unfurled the national flag to wave in the breeze where never flag waved before. During our morning's ascent we had met no sign of animal life, except the small sparrow-like bird already mentioned. A stillness the most profound and a terrible solitude forced themselves constantly on the mind as the great features of the place. Here, on the summit, where the stillness was absolute, unbroken by any sound, and solitude complete, we thought ourselves beyond the region of animated life; but while we were sitting on the rock, a solitary bee (*promus, the humble-bee*,) came winging his flight from the eastern valley and lit on the knee of one of the men.

It was a strange place, the icy rock and the highest peak of the Rocky Mountains, for a lover of warm sunshine and flowers; and we pleased our

selves with the idea that he was the first of his species to cross the mountain barrier—a solitary pioneer to foretell the advance of civilization. I believe that a moment's thought would have made us let him continue his way unharmed; but we carried out the law of this country, where all animated nature seems at war; and, seizing him immediately, put him in at least a fit place—in the leaves of a large book, among the flowers we had collected on our way. The barometer stood at 18,293, the attached thermometer at 44° ; giving for the elevation of this summit 13,570 feet above the Gulf of Mexico, which may be called the highest flight of the bee. It is certainly the highest known flight of that insect. From the description given by Mackenzie of the mountains where he crossed them, with that of a French officer still farther to the north, and Colonel Long's measurements to the south, joined to the opinion of the oldest traders of the country, it is presumed that this is the highest peak of the Rocky Mountains. The day was sunny and bright, but a slight shining mist hung over the lower plains, which interfered with our view of the surrounding country. On one side we overlooked innumerable lakes and streams, the spring of the Colorado of the Gulf of California; and on the other was the Wind River valley, where were the heads of the Yellowstone branch of the Missouri; far to the north, we could just discover the snowy heads of the *Trois Tetons*, where were the sources of the Missouri and Columbia rivers; and at the southern extremity of the ridge, the peaks were plainly visible, among which were some of the springs of the Nebraska or Platte river. Around us, the whole scene had one main, striking feature, which was that of terrible convulsion. Parallel to its length, the ridge was split into chasms and fissures; between which rose the thin, lofty walls, terminated with slender minarets and columns. According to the barometer, the little crest of the wall on which we stood was three thousand five hundred and seventy feet above that place, and two thousand seven hundred and eighty above the little lakes at the bottom, immediately at our feet. Our camp at the Two Hills (an astronomical station) bore south 3° east, which, with a bearing afterwards obtained from a fixed position, enabled us to locate the peak. The bearing of the *Trois Tetons* was north 50° west, and the direction of central ridge of the Wind River mountains south 39° east. The summit rock was gneiss, succeeded by sienitic gneiss. Sienite and feldspar succeeded in our descent to the snow line, where we found a feldspathic granite. I had remarked that the noise produced by the explosion of our pistols had the usual degree of loudness, but was not in the east prolonged, expiring almost instantaneously.

Having now made what observations our means afforded, we proceeded to descend. We had accomplished an object of laudable ambition, and beyond the strict order of our instructions. We had climbed the loftiest peak of the Rocky Mountains, and looked down upon the snow a thousand feet below; and, standing where never human foot had stood before, felt the exultation of first explorers. It was about two o'clock when we left the summit, and when we reached the bottom the sun had already sunk behind the wall, and the day was drawing to a close. It would have been pleasant to have lingered here and on the summit longer;

but we hurried away as rapidly as the ground would permit, for it was an object to regain our party as soon as possible, not knowing what accident the next hour might bring forth.

We reached our deposit of provisions at night-fall. Here was not the inn which awaits the tired traveler on his return from Mont Blanc, or the orange groves of South America, with their refreshing juices and soft fragrant air; but we found our little *cache* of dried meat and coffee undisturbed. Though the moon was bright, the road was full of precipices, and the fatigue of the day had been great. We therefore abandoned the idea of rejoining our friends, and lay down on the rock, and, in spite of the cold, slept soundly.

We left our encampment with the daylight. We saw on our way large flocks of the mountain-goat looking down on us from the cliffs. At the crack of the rifle, they would bound off among the rocks, and in a few minutes make their appearance on some lofty peak, some hundred or a thousand feet above. It is needless to attempt any further description of the country; the portion over which we traveled this morning was as rough as imagination could picture it, and to us seemed equally beautiful. A concourse of lakes and rushing waters — mountains of rocks, naked and destitute of vegetable earth — dells and ravines of the most exquisite beauty, all kept green and fresh by the great moisture in the air, and sown with brilliant flowers, and every where thrown around all the glory of most magnificent scenes — these constitute the features of the place, and impress themselves vividly on the mind of the traveler. It was not until 11 o'clock that we reached the place where our animals had been left, when we first attempted the mountains on foot. Near one of the still burning fires we found a piece of meat, which our friends had thrown away, and which furnished us a mouthful — a very scanty breakfast. We continued directly on, and reached our camp on the mountain lake at dusk. We found all well. Nothing had occurred to interrupt the quiet since our departure, and the fine grass and good cool water had done much to reestablish our animals. All heard with delight the order to turn our faces homeward; and towards sun down of the 17th we encamped again at the Two Buttes.

On the 23d we reached our encampment at Rock Independence, where I took some astronomical observations. Here, not unmindful of the custom of early travelers and explorers in our country, I engraved on this rock of the Far West a symbol of the Christian faith. Among the thickly inscribed names, I made on the hard granite the impression of a large cross, which I covered with a black preparation of India-rubber, well calculated to resist the influence of wind and rain. It stands amidst the names of many who have long since found their way to the grave, and for whom the huge rock is a giant gravestone.

In obedience to my instructions to survey the river Platte, if possible, I had determined to make an attempt at this place. The India-rubber boat was filled with air, placed in the water, and loaded with what was necessary for our operations; and I embarked with Mr. Prens and a party of men. When we had dragged our boat a mile or two over the sands, I abandoned the impossible undertaking, and waited for the arri

val of the party, when we packed up our boat and equipage, and at nine o'clock were again moving along on our land journey.

We descended to a small open plain, at the mouth of the Sweet Water which rushed with a rapid current into the Platte, here flowing along in a broad and apparently deep stream, which seemed, from its turbid appearance, to be considerably swollen. I obtained here some astronomical observations, and the afternoon was spent in getting our boat ready for navigation the next day.

We started before sunrise, intending to breakfast at Goat Island. I had directed the land party, in charge of Bernier, to proceed to that place, where they were to remain, should they find no note to apprize them of our having passed. In the event of receiving this information, they were to continue their route, passing by certain places which had been designated. Mr. Preuss accompanied me, and with us were five of my best men, viz. : C. Lambert, Basil Lajeunesse, Honore Ayot, Benoist, and Descoteaux. Here appeared no scarcity of water, and we took on board, with various instruments and baggage, provisions for ten or twelve days. We paddled down the river rapidly, for our little craft was light as a duck on the water ; and the sun had been some time risen, when we heard before us a hollow roar, which we supposed to be that of a fall, of which we had heard a vague rumor, but whose exact locality no one had been able to describe to us. We were approaching a ridge through which the river passes by a place called "canon," (pronounced *kanyon*,) a Spanish word, signifying a piece of artillery, the barrel of a gun, or any kind of tube ; and which, in this country, has been adopted to describe the passage of a river between perpendicular rocks of great height which frequently approach each other so closely overhead as to form a kind of tunnel over the stream, which foams along below, half choked up by fallen fragments. Between the mouth of the Sweet Water and Goat Island, there is probably a fall of three hundred feet, and that was principally made in canons before us ; as, without them, the water was comparatively smooth. As we neared the ridge, the river made a sudden turn, and swept squarely down against one of the walls of the canon, with great velocity, and so steep a descent that it had, to the eye, the appearance of an inclined plane. When we launched into this, the men jumped overboard, to check the velocity of the boat ; but were soon in water up to their necks, and our boat ran on. But we succeeded in bringing her to a small point of rocks on the right, at the mouth of the canon. Here was a kind of elevated sand-beach, not many yards square, backed by the rocks ; and around the point the river swept at a right angle. Trunks of trees deposited on jutting points, twenty or thirty feet above, and other marks, showed that the water here frequently rose to a considerable height. The ridge was of the same decomposing granite already mentioned, and the water had worked the surface, in many places, into a wavy surface of ridges and holes. We ascended the rocks to reconnoitre the ground, and from the summit the passage appeared to be a continued cataract, foaming over many obstructions, and broken by a number of small falls. We saw nowhere a fall answering to that which had been described to us as having twenty or twenty-five feet ; but

still concluded this to be the place in question, as, in the season of floods, the rush of the river against the wall would produce a great rise; and the waters, reflected squarely off, would descend through the passage in a sheet of foam, having every appearance of a large fall. Eighteen years previous to this time, as I have subsequently learned from himself, Mr. Fitzpatrick, somewhere above on this river, had embarked with a valuable cargo of beaver. Unacquainted with the stream, which he believed would conduct him safely to the Missouri, he came unexpectedly into this canon, where he was wrecked, with the total loss of his furs. It would have been a work of great time and labor to pack our baggage across the ridge, and I determined to run the canon. We all again embarked, and at first attempted to check the way of the boat; but the water swept through with so much violence that we narrowly escaped being swamped, and were obliged to let her go in the full force of the current, and trust to the skill of the boatmen. The dangerous places in this canon were where huge rocks had fallen from above, and hemmed in the already narrow pass of the river to an open space of three or four and five feet. These obstructions raised the water considerably above, which was sometimes precipitated over in a fall; and at other places, where this dam was too high, rushed through the contracted opening with tremendous violence. Had our boat been made of wood, in passing the narrows she would have been staved; but her elasticity preserved her unhurt from every shock, and she seemed fairly to leap over the falls.

In this way we passed three cataracts in succession, where perhaps 100 feet of smooth water intervened; and, finally, with a shout of pleasure at our success, issued from our tunnel into the open day beyond. We were so delighted with the performance of our boat, and so confident in her powers, that we would not have hesitated to leap a fall of ten feet with her. We put to shore for breakfast at some willows on the right bank, immediately below the mouth of the canon; for it was eight o'clock, and we had been working since daylight, and were all wet, fatigued, and hungry. While the men were preparing breakfast, I went out to reconnoitre. The view was very limited. The course of the river was smooth, so far as I could see; on both sides were broken hills; and but a mile or two below was another high ridge. The rock at the mouth of the canon was still the decomposing granite, with great quantities of mica, which made a very glittering sand.

We reëmbarked at nine o'clock, and in about twenty minutes reached the next canon. Landing on a rocky shore at its commencement, we ascended the ridge to reconnoitre. Portage was out of the question. So far as we could see, the jagged rocks pointed out the course of the canon, on a winding line of seven or eight miles. It was simply a narrow, dark chasm in the rock; and here the perpendicular faces were much higher than in the previous pass, being at this end two to three hundred, and further down, as we afterwards ascertained, five hundred feet in vertical height. Our previous success had made us bold, and we determined again to run the canon. Everything was secured as firmly as possible; and having divested ourselves of the greater part of our

clothing, we pushed into the stream. To save our chronometer from accident, Mr. Preuss took it, and attempted to proceed along the shore on the masses of rock, which in places were piled up on either side; but, after he had walked about five minutes, everything like shore disappeared, and the vertical wall came squarely down into the water. He therefore waited until we came up. An ugly pass lay before us. We had made fast to the stern of the boat a strong rope about fifty feet long; and three of the men clambered along among the rocks, and with this rope let her slowly through the pass. In several places high rocks lay scattered about in the channel; and in the narrows it required all our strength and skill to avoid staving the boat on the sharp points. In one of these, the boat proved a little too broad, and stuck fast for an instant, while the water flew over us; fortunately, it was but for an instant, as our united strength forced her immediately through. The water swept overboard only a sextant and a pair of saddle-bags. I caught the sextant as it passed by me; but the saddle-bags became the prey of the whirlpools. We reached the place where Mr. Preuss was standing, took him on board, and, with the aid of the boat, put the men with the rope on the succeeding pile of rocks. We found this passage much worse than the previous one, and our position was rather a bad one. To go back was impossible; before us, the cataract was a sheet of foam; and shut up in the chasm by the rocks, which, in some places, seemed almost to meet overhead, the roar of the water was deafening. We pushed off again; but, after making a little distance, the force of the current became too great for the men on shore, and two of them let go the rope. Lajeunesse, the third man, hung on, and was jerked headforemost into the river from a rock about twelve feet high; and down the boat shot like an arrow, Basil following us in the rapid current, and exerting all his strength to keep in mid channel—his head only seen occasionally like a black spot in the white foam. How far we went, I do not exactly know; but we succeeded in turning the boat into an eddy below. "*Cre Dieu*," said Basil Lajeunesse, as he arrived immediately after us, "*Je crois bien que j'ai nage un demi mile*." He had owed his life to his skill as a swimmer, and I determined to take him and the two others on board, and trust to skill and fortune to reach the other end in safety. We placed ourselves on our knees with the short paddles in our hands, the most skilful boatmen being at the bow; and again we commenced our rapid descent. We cleared rock after rock, and shot past fall after fall, our little boat seeming to play with the cataract. We became flushed with success, and familiar with the danger; and, yielding to the excitement of the occasion, broke forth into a Canadian boat-song. Singing, or rather shouting, we dashed along, and were, I believe, in the midst of the chorus, when the boat struck a concealed rock immediately at the foot of a fall, which whirled her over in an instant. Three of my men could not swim, and my first feeling was to assist them, and save some of our effects; but a sharp concussion or two convinced me that I had not yet saved myself. A few strokes brought me into an eddy, and I landed on a pile of rocks on the left side. Looking around, I saw that Mr. Preuss had gained the shore on the same side, about twenty yards below; and a little climbing

and swimming soon brought him to my side. On the opposite side, against the wall, lay the boat bottom up; and Lambert was in the act of saving Descoteaux, whom he had grasped by the hair, and who could not swim; "*Lâche pas,*" said he, as I afterwards learned, "*Lâche pas, cher frère.*" "*Crains pas,*" was the reply; "*je m'en vais mourir avant que de te lâcher.*" Such was the reply of courage and generosity in this danger. For a hundred yards below the current was covered with floating books and boxes, bales and blankets, and scattered articles of clothing; and so strong and boiling was the stream, that even our heavy instruments, which were all in cases, kept on the surface, and the sextant, circle, and long black box of the telescope were in view at once. For a moment, I felt somewhat disheartened. All our books—almost every record of the journey—our journals and registers of astronomical and barometrical observations—had been lost in a moment. But it was no time to indulge in regrets; and I immediately set about endeavoring to save something from the wreck. Making ourselves understood as well as possible by signs, (for nothing could be heard in the roar of waters,) we commenced operations. Of every thing on board, the only article that had been saved was my double-barreled gun, which Descoteaux had caught and clung to with drowning tenacity. The men continued down the river on the left bank. Mr. Preuss and myself descended on the side we were on; and Lajeunesse, with a paddle in his hand, jumped on the boat alone, and continued down the canon. She was now light, and cleared every bad place with much less difficulty. In a short time he was joined by Lambert, and the search was continued for about a mile and a half, which was as far as the boat could proceed in the pass.

Here the walls were about five hundred feet high, and the fragments of rocks from above had choked the river into a hollow pass, but one or two feet above the surface. Through this and the interstices of the rock, the water found its way. Favored beyond our expectations, all of our registers had been recovered, with the exception of one of my journals, which contained the notes and incidents of travel, and topographical descriptions, a number of scattered astronomical observations, principally meridian altitudes of the sun, and our barometrical register west of Lar-amie. Fortunately, our other journals contained duplicates of the most important barometrical observations which had been taken in the mountains. These, with a few scattered notes, were all that had been preserved of our meteorological observations. In addition to these, we saved the circle; and these, with a few blankets, constituted every thing that had been rescued from the waters.

The day was running rapidly away, and it was necessary to reach Goa Island, whither the party had preceded us, before night. In this uncertain country, the traveler is so much in the power of chance that we became somewhat uneasy in regard to them. Should any thing have occurred, in the brief interval of our separation, to prevent our rejoining them, our situation would be rather a desperate one. We had not a morsel of provisions—our arms and ammunition were gone—and we were entirely at the mercy of any straggling party of savages, and not a little in danger of starvation. We therefore set out at once in two parties,

Mr. Preuss and myself on the left, and the men on the opposite side of the river. Climbing out of the canon, we found ourselves in a very broken country, where we were not yet able to recognize any locality. In the course of our descent through the canon, the rocks, which at the upper end was of the decomposing granite, changed into a varied sandstone formation. The hill and points of the ridges were covered with fragments of a yellow sandstone, of which the strata were sometimes displayed in the broken ravines which interrupted our course, and made our walk extremely fatiguing. At one point of the canon the red argillaceous sandstone rose in a wall of five hundred feet, surmounted by a stratum of white sandstone; and in an opposite ravine a column of red sandstone rose, in form like a steeple, about one hundred and fifty feet high. The scenery was exceedingly picturesque, and notwithstanding our forlorn condition, we were frequently obliged to stop and admire it. Our progress was not very rapid. We had emerged from the water half naked, and, on arriving at the top of the precipice, I found myself with only one moccasin. The fragments of rock made walking painful, and I was frequently obliged to stop and pull out the thorns of the *cactus*, here the prevailing plant, and with which a few minutes' walk covered the bottoms of my feet. From this ridge the river emerged into a smiling prairie, and, descending to the bank for water, we were joined by Benoist. The rest of the party were out of sight, having taken a more inland route. We crossed the river repeatedly—sometimes able to ford it, and sometimes swimming—climbed over the ridges of two more canons, and towards evening reached the cut, which we here named the Hot Spring gate. On our previous visit in July, we had not entered this pass, reserving it for our descent in the boat; and when we entered it this evening, Mr. Preuss was a few hundred feet in advance. Heated with the long march, he came suddenly upon a fine bold spring gushing from the rock, about ten feet above the river. Eager to enjoy the crystal water, he threw himself down for a hasty draught, and took a mouthful of water almost boiling hot. He said nothing to Benoist, who laid himself down to drink; but the steam from the water arrested his eagerness, and he escaped the hot draught. We had no thermometer to ascertain the temperature, but I could hold my hand in the water just long enough to count two seconds. There are eight or ten of these springs discharging themselves by streams large enough to be called runs. A loud hollow noise was heard from the rock, which I supposed to be produced by the fall of water. The strata immediately where they issue is a fine white calcareous sandstone, covered with an incrustation of common salt. Leaving this Thermopylæ of the west, in a short walk we reached the red ridge which has been described as lying just above Goat Island. Ascending this, we found some fresh tracks and a button, which showed that the other men had already arrived. A shout from the man who first reached the top of the ridge, responded to from below, informed us that our friends were all on the island; and we were soon among them. We found some pieces of buffalo standing around the fire for us, and managed to get some dry clothes among the people. A sudden storm of rain drove us into the best shelter we could find, where we slept

soundly, after one of the most fatiguing days I have ever experienced.

Early next morning Lajeunesse was sent to the wreck for the articles which had been saved, and about noon we left the island. The mare which we had left here in July had much improved in condition, and she served us well again for some time, but was finally abandoned at a subsequent part of the journey. At 10 in the morning of the 26th we reached Cache camp, where we found every thing undisturbed. We disinterred our deposit, arranged our carts which had been left here on the way out; and, traveling a few miles in the afternoon, encamped for the night at the ford of the Platte.

We reached Laramie fort on the last day of August, after an absence of forty-two days, and had the pleasure to find our friends all well. The fortieth day had been fixed for our return; and the quick eyes of the Indians, who were on the lookout for us, discovered our flag as we wound among the hills. The fort saluted us with repeated discharges of its single piece, which we returned with scattered volleys of our small-arms, and felt the joy of a home reception in getting back to this remote station, which seemed so far off as we went out.

On the morning of the 3d September we bade adieu to our kind friends at the fort, and continued our homeward journey down the Platte, which was glorious with the autumnal splendor of innumerable flowers in full and brilliant bloom. On the warm sands, among the *helianthi*, one of the characteristic plants, we saw great numbers of rattlesnakes, of which five or six were killed in the morning's ride. We occupied ourselves in improving our previous survey of the river; and, as the weather was fine, astronomical observations were generally made at night and at noon.

We halted for a short time on the afternoon of the 5th with a village of Sioux Indians, some of whose chiefs we had met at Laramie. The water in the Platte was exceedingly low; in many places, the large expanse of sands, with some occasional stunted tree on its banks, gave it the air of the sea-coast; the bed of the river being merely a succession of sand-bars, among which the channel was divided into rivulets of a few inches deep. We crossed and recrossed with our carts repeatedly and at our pleasure; and, whenever an obstruction barred our way in the shape of precipitous bluffs that came down upon the river, we turned directly into it, and made our way along the sandy bed, with no other inconvenience than the frequent quicksands, which greatly fatigued our animals. Disinterring on the way the *cache* which had been made by our party when they ascended the river, we reached without accident, on the evening of the 12th of September, our old encampment of the 2d of July, at the junction of the forks. Our *cache* of the barrel of pork was found undisturbed, and proved a seasonable addition to our stock of provisions. At this place I had determined to make another attempt to descend the Platte by water, and accordingly spent two days in the construction of a bull boat. Men were sent out on the evening of our arrival, the necessary number of bulls killed, and their skins brought to the camp. Four of the best of them were strongly sewed together with buffalo sinew, and stretched over a basket frame of willow. The seams

were then covered with ashes and tallow, and the boat left exposed to the sun for the greater part of one day, which was sufficient to dry and contract the skin, and make the whole work solid and strong. It had a rounded bow, was eight feet long and five broad, and drew with four men about four inches water. On the morning of the 15th we embarked in our hide boat, Mr. Preuss and myself, with two men. We dragged her over the sands for three or four miles, and then left her on a bar, and abandoned all further attempts to navigate this river. The names given by the Indians are always remarkably appropriate; and certainly none was ever more so than that which they have given to this stream—"The Nebraska, or Shallow river." Walking steadily the remainder of the day, a little before dark we overtook our people at their remaining camp, about twenty-one miles below the junction. The next morning we crossed the Platte, and continued our way down the river bottom on the left bank, where we found an excellent, plainly beaten road.

I had sent forward C. Lambert, with two men, to Bellevue, with directions to ask from Mr. P. Sarpy, the gentleman in charge of the American Company's establishment at that place, the aid of his carpenters in constructing a boat, in which I proposed to descend the Missouri. On the afternoon of the 27th we met one of the men, who had been dispatched by Mr. Sarpy with a welcome supply of provisions and a very kind note, which gave us the very gratifying intelligence that our boat was in rapid progress. On the evening of the 30th we encamped in an almost impenetrable undergrowth on the left bank of the Platte, in the point of land at its confluence with the Missouri—315 miles, according to our reckoning, from the junction of the forks, and 250 from Fort Laramie.

I rose next morning long before daylight, and heard with a feeling of pleasure the tinkling of cow-bells at the settlements on the opposite side of the Missouri. Early in the day we reached Mr. Sarpy's residence; and, in the security and comfort of his hospitable mansion, felt the pleasure of being within the pale of civilization. We found our boat on the stocks; a few days sufficed to complete her; and, in the afternoon of the 4th, we embarked on the Missouri. All our equipage—horses, carts, and the *materiel* of the camp—had been sold at public auction at Bellevue. The strength of my party enabled me to man the boat with ten oars, relieved every hour; and we descended rapidly. Early on the morning of the 10th, we halted to make some astronomical observations at the mouth of the Kansas, exactly four months since we had left the trading-post of Mr. Cyprian Chouteau, on the same river, ten miles above. On our descent to this place, we had employed ourselves in surveying and sketching the Missouri, making astronomical observations regularly at night and at mid-day, whenever the weather permitted. These operations on the river were continued until our arrival at the city of St. Louis, Missouri, on the 17th of October.

The London *Athenæum*, of March, 1844, commences a review of the foregoing report in the following complimentary strain:

"The government of the United States did well when, in furtherance

of a resolution to survey the road across the Great Western Prairie and the Rocky Mountains to the Oregon territory, it selected Lieutenant Frémont for the execution of the work. We have rarely met with a production so perfect in its kind as the unpretending pamphlet containing this report. The narrative, clear, full, and lively, occupies only seventy-six pages, to which are appended one hundred and thirty pages, filled with the results of botanical researches, and of astronomical and meteorological observations. What a contrast does this present to the voluminous emptiness and conceited rhodomontade so often brought forth by our costly expeditions. The country gone over by Lieutenant Frémont is certainly not the most interesting in the world, nor is it quite new. Yet he is evidently not the man to travel two thousand miles without observing much which is worthy of being recorded, or to write a page which is likely to prove tedious in the reading. His points of view are so well chosen, his delineation has so much truth and spirit, and his general remarks are so accurate and comprehensive, that under his guidance we find the far-west prairies nearly as fresh and tempting as the most favored Arcadian scenes, the hallowed groves of which were never trodden by the foot of a squatting emigrant or fur trader."

JOURNEY FROM MISSOURI TO OREGON.

Important as had been the results of Frémont's first expedition, he pined for others which were still greater and more extensive. He desired to complete his survey across the continent, not only in order to examine the line of travel between the state of Missouri and the tide-water region of the Columbia River, but also to explore that vast and then unknown region, which lay between the Rocky Mountains and the Pacific Ocean. This immense tract comprised the whole western slope of the continent. It contained more than seven hundred miles square; and the journey proposed was one of the boldest and most dangerous ever undertaken by an emissary either of commerce, discovery, or science.

Lieutenant Frémont asked and obtained orders from the department at Washington to undertake this journey. His instructions directed him only to advance as far as the tide-water region of the Columbia River. He resolved to extend his researches into the untraveled solitudes of the western limits of the continent. But all his aspirations and triumphs were nearly defeated by the jealousy of the government, and the meanness of the imbecile officials who at that time, but happily only for a very short period, occupied the posts of influence at Washington. James M. Porter, of Pennsylvania, was then secretary of war. Scarcely had Frémont reached the frontier of Missouri, when orders arrived at St. Louis, countermanding the expedition. The alleged ground of complaint was that he had prepared himself with a military equipment, which the pacific nature of his journey did not require. It was specially charged

as a heinous offense, that he had procured a small mountain howitzer from the arsenal at St. Louis, in addition to his other fire-arms.

But the heroic resolution of the fair daughter of Missouri, his wife defeated the ignoble aims of those who would have stopped the young adventurer in his career of toil and glory. After her husband's departure from St. Louis, the letters intended for him were opened by her at his request, and such as needed immediate attention were sent after him. She perused the communication which contained the unwelcome news from Washington, and resolved to detain it, and Frémont knew nothing of the contents, until his return more than a year afterward.

In May, 1843, Lieutenant Frémont commenced this journey, having twenty-five men under him, and in November he reached the tide-water region of the Columbia. He carefully explored the whole intervening region, and had then already completed the service ordered by the government. He might have immediately returned home, and have chosen for that purpose the most convenient and secure road. But he had other and nobler aims in view. When at Fort Vancouver, a guest of Dr. McLaughlin, governor of the British Hudson Bay Fur Company, he obtained some information in reference to his proposed route, which was to cross diagonally that great unknown region, making a line from the Lower Columbia to the Upper Colorado, on the Gulf of California. The geography of this vast region was then entirely unknown. Conjectures existed as to the probable features of its grand outlines, but even these he discovered afterward to have been erroneous. A large river termed the *Buena Ventura*, was supposed to flow from the base of the Rocky Mountains to the Bay of San Francisco. But no such body of water existed; and the bold adventurer suffered many hardships from the absence of those resources which the existence of a great river along his route would have procured. As he journeyed along he encountered deep snows, and the most rigorous weather. Hostile Indians hovered around his path. He sometimes journeyed near dangerous precipices, and over rugged mountains. Occasionally from great eminences covered with a deep mantle of perpetual snow, he looked down upon verdant vales beneath, shut out by the high barriers of nature from all the rest of the world. One mule packed with a valuable burden of botanical collections, slid off from the verge of a cliff half a mile in height, and was dashed to pieces in the far-off ravine below. No rewards could induce the Indians to venture into these perilous solitudes as guides to the travelers. Soon men and horses began to sink beneath the unparalleled sufferings of the journey. The slow and mournful procession of feeble starving skeletons crawled like a disabled serpent along the dangerous heights of their mountain way in the dead of winter, surrounded by the deep snows of the Sierra Nevada, and by all the awful incidents of a march among the rudest fortresses and solitudes of nature. But no danger or suffering appalled the resolute spirit of the bold leader of the expedition. After a journey of two thousand miles, which for intrepid endurance, unconquerable determination, and skillful management, is not surpassed by the achievement of any conqueror, Frémont and his associates arrived at Sutter's Settlement in the valley of the Sacramento, and there rested and recruited from the sufferings which they had endured.

Frémont, after a short interval of repose, then resumed his journey to the still farther south, and explored the valley of San Joaquin. Thence, crossing the mountains through a gap, he skirted the Great Basin. As he journeyed through this comparatively unknown world, he made rich collections in various branches of science. All the great features of the western slope of our continent were then scrutinized. The Great Salt Lake, the Utah Lake, the Little Salt Lake, the present retreat and future empire of the Latter Day Saints, and the mountains of the Sierra Nevada, from whose bowels, till then unviolated, the emigrant has torn uncounted millions of gold treasure—all these were examined and explored by this expedition. During eleven months they were never out of sight of ice and snow. At length, having accomplished all that he desired, Frémont returned to his home, after an absence of a year, bearing the rich fruits of his toils, dangers, and heroism, in an enlarged and satisfactory acquaintance with the resources of those vast and unappropriated realms and contribution in botany, mineralogy, geology; together with valuable investigations in meteorology, geography climatology, and other departments of science, as will fully appear from extracts from his own narrative in the following pages.

To Col. J. J. Abert, Chief of the Corps of Topographical Engineers:

SIR :—In pursuance of your instructions, to connect the reconnoissance of 1842, which I had the honor to conduct, with the surveys of Commander Wilkes on the coast of the Pacific ocean, so as to give a connected survey of the interior of our continent, I proceeded to the Great West early in the spring of 1843, and arrived, on the 17th of May, at the little town of Kansas, on the Missouri frontier, near the junction of the Kansas river with the Missouri river, where I was detained near two weeks in completing the necessary preparations for the extended explorations which my instructions contemplated.

My party consisted principally of Creole and Canadian French, and Americans, amounting in all to thirty-nine men; among whom you will recognize several of those who were with me in my first expedition, and who have been favorably brought to your notice in a former report. Mr. Thomas Fitzpatrick, whom many years of hardship and exposure in the western territories, had rendered familiar with a portion of the country it was designed to explore, had been selected as our guide; and Mr. Charles Preuss, who had been my assistant in a previous journey, was again associated with me in the same capacity, on the present expedition. Agreeably to your directions, Mr. Theodore Talbot, of Washington city, had been attached to the party, with a view to advancement in his profession; and at St. Louis I had been joined by Mr. Frederick Dwight, a gentleman of Springfield, Massachusetts, who availed himself of our overland journey to visit the Sandwich Islands and China, by way of Fort Vancouver.

The party was generally armed with Hall's carbines, which, with a brass twelve pound howitzer, had been furnished to me from the United States Arsenal at St. Louis, agreeably to the orders of Colonel S. W. Kearney commanding the third military division. Three men were especially de-

tailed for the management of this piece, under the charge of Louis Zindel, a native of Germany, who had been nineteen years a non-commissioned officer of artillery in the Prussian army, and regularly instructed in the duties of his profession. The camp equipage and provisions were transported in twelve carts, drawn each by two mules; and a light covered wagon, mounted on good springs, had been provided for the safe carriage of instruments.

To make the exploration as useful as possible, I determined, in conformity to your general instructions, to vary the route to the Rocky Mountains from that followed in 1842. The route was then up the valley of the Great Platte river to the South Pass, in north latitude 42° ; the route now determined on was up the valley of the Kansas river, to the head of the Arkansas river, and to some pass in the mountains, if any could be found, at the sources of that river.

By making this deviation from the former route, the problem of a new road to Oregon and California, in a climate more genial, might be solved; and a better knowledge obtained of an important river, and the country it drained, while the great object of the expedition would find its point of commencement at the termination of the former, which was at that great gate in the ridge of the Rocky Mountains called the South Pass, and on the lofty peak of the mountain which overlooks it, deemed the highest peak in the ridge, and from the opposite side of which four great rivers take their rise, and flow to the Pacific or the Mississippi.

Various obstacles delayed our departure until the morning of the 29th, when we commenced our long voyage; and at the close of a day, rendered disagreeably cold by incessant rain, encamped about four miles beyond the frontier, on the verge of the great prairies.

From Elm Grove, our route until the third of June was nearly the same as that described to you in 1842. Trains of wagons were almost constantly in sight; giving to the road a populous and animated appearance, although the greater portion of the emigrants were collected at the crossing, or already on their march beyond the Kansas river. Leaving at the ford the usual emigrant road to the mountains, we continued our route along the southern side of the Kansas, where we found the country much more broken than on the northern side of the river, and where our progress was much delayed by the numerous small streams, which obliged us to make frequent bridges.

We arrived on the 8th at the mouth of the Smoky-hill fork, which is the principal southern branch of the Kansas: forming here, by its junction with the Republican, or northern branch, the main Kansas river. Neither stream was fordable, and the necessity of making a raft, together with bad weather, detained us here till the morning of the 11th, when we resumed our journey along the Republican fork. By our observations, the junction of the streams is in lat. $39^{\circ} 40' 38''$, long. $96^{\circ} 24' 36''$, and at an elevation of 926 feet above the Gulf of Mexico. For several days we continued to travel along the Republican, through a country beautifully watered with numerous streams, and handsomely timbered; and rarely an incident occurred to vary the monotonous resemblance which one day on the prairies here bears to another, and which

scarcely require a particular description. Now and then, we caught a glimpse of a small herd of elk; and occasionally a band of antelopes, whose curiosity sometimes brought them within rifle range, would circle round us and then scour off into the prairies. As we advanced on our road, these became more frequent; but as we journeyed on the line usually followed by the trapping and hunting parties of the Kansas and Delaware Indians, game of every kind continued very shy and wild. The bottoms which form the immediate valley of the main river, were generally about three miles wide; having a rich soil of black vegetable mould, and, for a prairie country, well interspersed with wood. The country was every where covered with a considerable variety of grasses, occasionally poor and thin, but far more frequently luxuriant and rich. We had been gradually and regularly ascending in our progress westward, and on the evening of the 14th, when we encamped on a little creek in the valley of the Republican, 265 miles by our traveling road from the mouth of the Kansas, we were at an elevation of 1,520 feet. That part of the river where we were now encamped is called by the Indians the *Big Timber*. Hitherto our route had been laborious and extremely slow, the unusually wet spring and constant rain having so saturated the whole country that it was necessary to bridge every water-course, and, for days together, our usual march averaged only five or six miles. Finding that at such a rate of travel it would be impossible to comply with your instructions, I determined at this place to divide the party, and, leaving Mr. Fitzpatrick with twenty-five men in charge of the provisions and heavier baggage of the camp, to proceed myself in advance, with a light party of fifteen men, taking with me the howitzer and the light wagon which carried the instruments.

On the 19th, in the afternoon, we crossed the Pawnee road to the Arkansas, and traveling a few miles onward, the monotony of the prairies was suddenly dispelled by the appearance of five or six buffalo bulls, forming a vanguard of immense herds, among which we were traveling a few days afterwards.

Our road on the 25th lay over high smooth ridges, 3,100 feet above the sea; buffalo in great numbers, absolutely covering the face of the country. At evening we encamped within a few miles of the main Republican, on a little creek, where the air was fragrant with the perfume of the *artemisia filifolia*, which we here saw for the first time, and which was now in bloom. Shortly after leaving our encampment on the 26th, we found suddenly that the nature of the country had entirely changed. Bare sand-hills everywhere surrounded us in the undulating ground along which we were moving, and the plants peculiar to a sandy soil made their appearance in abundance. A few miles further we entered the valley of a large stream, afterwards known to be the Republican fork of the Kansas, whose shallow waters, with a depth of only a few inches, were spread out over a bed of yellowish white sand six hundred yards wide. With the exception of one or two distant and detached groves, no timber of any kind was to be seen; and the features of the country assumed a desert character, with which the broad river, struggling for existence among the quicksands along the treeless banks, was strikingly in keeping. On the

opposite side, the broken ridges assumed almost a mountainous appearance; and fording the stream, we continued on our course among these ridges, and encamped late in the evening at a little pond of very bad water, from which we drove away a herd of buffalo that were standing in and about it. Our encampment this evening was 3,500 feet above the sea. We traveled now for several days through a broken and dry sandy region, about 4,000 feet above the sea, where there were no running streams; and some anxiety was constantly felt on account of the uncertainty of water, which was only to be found in small lakes that occurred occasionally among the hills. The discovery of these always brought pleasure to the camp, as around them were generally green flats, which afforded abundant pasturage for our animals; and here were usually collected herds of buffalo, which now were scattered over all the country in countless numbers.

The soil of bare and hot sands supported a varied and exuberant growth of plants, which were much farther advanced than we had previously found them, and whose showy bloom somewhat relieved the appearance of general sterility. Crossing the summit of an elevated and continuous range of rolling hills, on the afternoon of the 30th of June, we found ourselves overlooking a broad and misty valley, where, about ten miles distant, and 1,000 feet below us, the South fork of the Platte was rolling magnificently along, swollen with the waters of the melting snows. It was in strong and refreshing contrast with the parched country from which we had just issued; and when, at night, the broad expanse of water grew indistinct, it almost seemed that we had pitched our tents on the shore of the sea.

Traveling along up the valley of the river, here 4,000 feet above the sea, in the afternoon of July 1, we caught a far and uncertain view of a faint blue mass in the west, as the sun sank behind it; and from our camp in the morning, at the mouth of Bijou, Long's Peak and the neighboring mountains stood out into the sky, grand and luminously white, covered to their bases with glittering snow.

On the evening of the 3d, as we were journeying along the partially overflowed bottoms of the Platte, where our passage stirred up swarms of mosquitoes, we came unexpectedly on an Indian, who was perched upon a bluff, cautiously watching the movements of our caravan. He belonged to a village of Oglallah Sioux, who had lost all their animals in the severity of the preceding winter, and were now on their way up the Bijou fork to beg horses from the Arapahoes, who were hunting buffalo at the head of that river. Several came into our camp at noon; and, as they were hungry, as usual, they were provided with buffalo-meat, of which the hunters had brought in an abundant supply.

About noon, on the 4th of July, we arrived at the fort, where Mr. St Vrain received us with his customary kindness, and invited us to join him in a feast which had been prepared in honor of the day.

Our animals were very much worn out, and our stock of provisions entirely exhausted, when we arrived at the fort; but I was disappointed in my hope of obtaining relief, as I found it in a very impoverished condition; and we were able to procure only a little unbolted Mexican flour, and some salt, with a few pounds of powder and lead.

As regarded provisions, it did not much matter in a country where rarely the day passed without seeing some kind of game, and where it was frequently abundant. It was a rare thing to lie down hungry, and we had already learned to think bread a luxury; but we could not proceed without animals, and our own were not capable of prosecuting the journey beyond the mountains without relief.

I had been informed that a large number of mules had recently arrived at Taos, from Upper California; and as our friend, Mr. Maxwell, was about to continue his journey to that place, where a portion of his family resided, I engaged him to purchase for me ten or twelve mules, with the understanding that he should pack them with provisions and other necessities, and meet me at the mouth of the *Fontaine-qui-bouit*, on the Arkansas river, to which point I would be led in the course of the survey.

At daybreak, on the 6th of July, Maxwell was on his way to Taos; and a few hours after we also had recommenced our journey up the Platte, which was continuously timbered with cottonwood and willow, on a generally sandy soil.

We made next morning an early start, continuing to travel up the Platte; and in a few miles frequent bands of horses and mules, scattered for several miles round about, indicated our approach to the Arapaho village, which we found encamped in a beautiful bottom, and consisting of about one hundred and sixty lodges. It appeared extremely populous, with a great number of children—a circumstance which indicated a regular supply of the means of subsistence. The chiefs, who were gathered together at the farther end of the village, received us (as probably strangers are always received to whom they desire to show respect or regard) by throwing their arms around our necks and embracing us.

It required some skill in horsemanship to keep the saddle during the performance of this ceremony, as our American horses exhibited for them the same fear they have for a bear, or any other wild animal. Having very few goods with me, I was only able to make them a meagre present, accounting for the poverty of the gift by explaining that my goods had been left with the wagons in charge of Mr. Fitzpatrick, who was well known to them as the White Head, or the Broken Hand. I saw here, as I had remarked in an Arapaho village the preceding year, near the lodges of the chiefs, tall tripods of white poles supporting their spears and shields, which showed it to be a regular custom.

Though disappointed in obtaining the presents which had been evidently expected, they behaved very courteously; and, after a little conversation, I left them, and, continuing on up the river, halted to noon on the bluff, as the bottoms are almost inundated; continuing in the afternoon our route along the mountains, which were dark, misty, and shrouded—threatening a storm; the snow peaks sometimes glittering through the clouds beyond the first ridge.

We surprised a grizzly bear sauntering along the river, which, raising himself upon his hind legs, took a deliberate survey of us, that did not appear very satisfactory to him, and he scrambled into the river and swam to the opposite side.

During the morning there occurred many beautiful flowers, which we

had not hitherto met. Among them, the common blue flowering *fax* made its first appearance; and a tall and handsome species of *gilia*, with slender scarlet flowers, which appeared yesterday for the first time, was very frequent to-day.

We had found very little game since leaving the fort, and provisions began to get unpleasantly scant, as we had had no meat for several days; but towards sundown, when we had already made up our minds to sleep another night without supper, Lajeunesse had the good fortune to kill a fine deer, which he found feeding in a hollow near by; and as the rain began to fall, threatening an unpleasant night, we hurried to secure a comfortable camp in the timber.

To-night the camp-fires, girdled with *appolas* of fine venison, looked cheerful in spite of the stormy weather.

On account of the low state of our provisions and the scarcity of game, I determined to vary our route, and proceed several camps to the eastward, in the hope of falling in with the buffalo. This route along the dividing grounds between the South fork of the Platte and the Arkansas, would also afford some additional geographical information. This morning, therefore, we turned to the eastward, along the upper waters of the stream on which we had encamped, entering a country of picturesque and varied scenery; broken into rocky hills of singular shapes; little valleys, with pure crystal water, here leaping swiftly along, and there losing itself in the sands; green spots of luxuriant grass, flowers of all colors, and timber of different kinds—everything to give it a varied beauty, except game. To one of these remarkably shaped hills, having on the summit a circular flat rock two or three hundred yards in circumference, some one gave the name of Poundcake, which it has been permitted to retain, as our hungry people seemed to think it a very agreeable comparison. In the afternoon a buffalo bull was killed, and we encamped on a small stream, near the road which runs from St. Vrain's fort to the Arkansas.

Snow fell heavily on the mountains during the night, and Pike's Peak this morning is luminous and grand, covered from the summit, as low down as we can see, with glittering white. Leaving the encampment at 6 o'clock, we continued our easterly course over a rolling country, near to the high ridges which are generally rough and rocky, with a coarse conglomerate displayed in masses, and covered with pines.

As we were riding quietly along, eagerly searching every hollow in search of game, we discovered, at a little distance in the prairie, a large grizzly bear, so busily engaged in digging roots that he did not perceive us until we were galloping down a little hill fifty yards from him, when he charged upon us with such sudden energy that several of us came near losing our saddles. Being wounded, he commenced retreating to a rocky piny ridge near by, from which we were not able to cut him off, and we entered the timber with him. The way was very much blocked up with fallen timber; and we kept up a running fight for some time, animated by the bear charging among the horses. He did not fall until after he had received six rifle balls. He was miserably poor, and added nothing to our stock of provisions.

We had an excellent view of Pike's Peak from camp, at the distance of forty miles. This mountain barrier presents itself to travelers on the plains, which sweep almost directly to its bases—an immense and comparatively smooth and grassy prairie—in very strong contrast with the black masses of timber, and the glittering snow above them. With occasional exceptions, comparatively so very small as not to require mention, these prairies are everywhere covered with a close and vigorous growth of a great variety of grasses, among which the most abundant is the buffalo grass. Between the Platte and Arkansas rivers, that part of this region which forms the basin drained by the waters of the Kansas, with which our operations made us more particularly acquainted, is based upon a formation of calcareous rocks. The soil of all this country is excellent, admirably adapted to agricultural purposes, and would support a large agricultural and pastoral population. A glance at the map, along our several lines of travel, will show you that this plain is watered by many streams. Throughout the western half of the plain, these are shallow, with sandy beds, becoming deeper as they reach the richer lands approaching the Missouri river; they generally have bottom lands, bordered by bluffs varying from fifty to five hundred feet in height. In all this region the timber is entirely confined to the streams. In the eastern half, where the soil is a deep, rich, vegetable mould, retentive of rain and moisture, it is of vigorous growth, and of many different kinds; and throughout the western half it consists entirely of various species of cottonwood, which deserves to be called the tree of the desert—growing in sandy soils, where no other tree will grow—pointing out the existence of water, and furnishing to the traveler fuel, and food for his animals. Add to this that the western border of the plain is occupied by the Sioux, Arapaho, and Cheyenne nations, with the Pawnees and other half-civilized tribes in its eastern limits, for whom the intermediate country is a war-ground, and you will have a tolerably correct idea of the appearance and condition of the country.

We passed near the encampment of a hunter named Maurice, who had been out into the plains in pursuit of buffalo calves, a number of which I saw among some domestic cattle near his lodge. Shortly afterwards, a party of mountaineers galloped up to us—fine-looking and hardy men, dressed in skins, and mounted on good fat horses; among them were several Connecticut men, a portion of Wyeth's party, whom I had seen the year before, and others were men from the western States.

Continuing down the river, we encamped at noon on the 14th, at its mouth, on the Arkansas river. A short distance above our encampment, on the left bank of the Arkansas, is a *pueblo*, (as the Mexicans call their civilized Indian villages,) where a number of mountaineers, who had married Spanish women in the valley of Taos, had collected together and occupied themselves in farming, carrying on at the same time a desultory Indian trade. They were principally Americans, and treated us with all the rude hospitality their situation admitted; but as all commercial intercourse with New Mexico was now interrupted, in consequence of Mexican decrees to that effect, there was nothing to be had in the way of provisions. They had, however, a fine stock of cattle, and furnished us an

abundance of excellent milk. I learned here that Maxwell, in company with two other men, had started for Taos, on the morning of the 9th, but that he would probably fall into the hands of the Utah Indians, commonly called the *Spanish Yutes*. As Maxwell had no knowledge of their being in the vicinity when he crossed the Arkansas, his chance of escape was very doubtful; but I did not entertain much apprehension for his life, having great confidence in his prudence and courage. I was further informed that there had been a popular tumult among the *pueblos*, or civilized Indians, residing near Taos, against the "*foreigners*" of that place, in which they had plundered their houses and ill-treated their families. Among those whose property had been destroyed, was Mr. Beau bien, father-in-law of Maxwell, from whom I had expected to obtain supplies, and who had been obliged to make his escape to Santa Fé.

By this position of affairs, our expectation of obtaining supplies from Taos was cut off. I had here the satisfaction to meet our good buffalo-hunter of 1842, Christopher Carson, whose services I considered myself fortunate to secure again; and as a reinforcement of mules was absolutely necessary, I dispatched him immediately, with an account of our necessities, to Mr. Charles Bent, whose principal post is on the Arkansas river, about seventy-five miles below *Fontaine-qui-bouit*. He was directed to proceed from that post by the nearest route across the country, and meet me, with what animals he should be able to obtain, at St. Vrain's fort.

On the morning of the 16th, the time for Maxwell's arrival having expired, we resumed our journey, leaving for him a note, in which it was stated that I would wait for him at St. Vrain's fort, until the morning of the 26th, in the event that he should succeed in his commission. Our direction was up the Boiling Spring river, it being my intention to visit the celebrated springs from which the river takes its name, and which are on its upper waters, at the foot of Pike's Peak. On the afternoon of the 17th, we entered among the broken ridges at the foot of the mountains, where the river made several forks. Leaving the camp to follow slowly, I rode ahead in the afternoon in search of the springs. In the mean time, the clouds, which had been gathered all the afternoon over the mountains, began to roll down their sides; and a storm so violent burst upon me, that it appeared I had entered the storehouse of the thunder-storms. I continued, however, to ride along up the river until about sunset, and was beginning to be doubtful of finding the springs before the next day, when I came suddenly upon a large smooth rock, about twenty yards in diameter, where the water from several springs was bubbling and boiling up in the midst of a white incrustation, with which it had covered a portion of the rock. As this did not correspond with the description given me by the hunters, I did not stop to taste the water, but dismounting, walked a little way up the river, and, passing through a narrow thicket of shrubbery bordering the stream, stepped directly upon a huge white rock, at the foot of which the river, already become a torrent, foamed along, broken by a small fall. A deer which had been drinking at the spring was startled by my approach, and, springing across the river, bounded off up the mountain. In the upper part of the rock, which had apparently been formed by deposition, was a beautiful white

basin, overhung by currant bushes, in which the cold clear water bubbled up, kept in constant motion by the escaping gas, and overflowing the rock, which it had almost entirely covered with a smooth crust of glistening white. I had all day refrained from drinking, reserving myself for the spring; and as I could not well be more wet than the rain had already made me, I lay down by the side of the basin, and drank heartily of the delightful water. The spring is situated immediately at the foot of lofty mountains, beautifully timbered, which sweep closely round, shutting up the little valley in a kind of cove. As it was beginning to grow dark, I rode quickly down the river, on which I found the camp a few miles below.

The morning of the 18th was beautiful and clear; and, all the people being anxious to drink of these famous waters, we encamped immediately at the springs, and spent there a very pleasant day. On the opposite side of the river is another locality of springs, which are entirely of the same nature. The water has a very agreeable taste, which Mr. Preuss found very much to resemble that of the famous Selter springs in the grand duchy of Nassau, a country famous for wine and mineral waters; and it is almost entirely of the same character, though still more agreeable than that of the famous Bear springs, near Bear river of the Great Salt Lake.

We continued our march up the stream, along a green sloping bottom, between pine hills on the one hand, and the main Black Hills on the other, towards the ridge which separates the waters of the Platte from those of the Arkansas. As we approached the dividing ridge, the whole valley was radiant with flowers; blue, yellow, pink, white, scarlet, and purple, vie with each other in splendor. *Espargette* was one of the highly characteristic plants, and a bright-looking flower (*gaillardia aristata*) was very frequent; but the most abundant plant along our road to-day, was *geranium maculatum*, which is the characteristic plant on this portion of the dividing grounds. Crossing to the waters of the Platte, fields of blue flax added to the magnificence of this mountain garden; this was occasionally four feet in height, which was a luxuriance of growth that I rarely saw this almost universal plant attain throughout the journey.

Reaching St. Vrain's fort on the morning of the 28d, we found Mr. Fitzpatrick and his party in good order and excellent health, and my true and reliable friend, Kit Carson, who had brought with him ten good mules, with the necessary pack-saddles. Mr. Fitzpatrick, who had often endured every extremity of want during the course of his mountain life, and knew well the value of provisions in this country, had watched over our stock with jealous vigilance, and there was an abundance of flour, rice, sugar, and coffee, in the camp; and again we fared luxuriously. Meat was, however, very scarce; and two very small pigs, which we obtained at the fort, did not go far among forty men. Mr. Fitzpatrick had been here a week, during which time his men had been occupied in refitting the camp; and the repose had been very beneficial to his animals, which were now in tolerably good condition.

Having determined to try the passage by a pass through a spur of the mountains made by the *Cache-a-la-Poudre* river, which rises in the high

bed of mountains around Long's Peak, I thought it advisable to avoid any encumbrance which would occasion detention, and accordingly again separated the party into two divisions—one of which, under the command of Mr. Fitzpatrick, was directed to cross the plains to the mouth of Laramie river, and, continuing thence its route along the usual emigrant road, meet me at Fort Hall, a post belonging to the Hudson Bay Company, and situated on Snake river, as it is commonly called in the Oregon Territory, although better known to us as Lewis's fork of the Columbia.

Our Delaware Indians having determined to return to their homes, it became necessary to provide this party with a good hunter; and I accordingly engaged in that capacity Alexander Godey, a young man about 25 years of age, who had been in this country six or seven years, all of which time had been actively employed in hunting for the support of the posts, or in solitary trading expeditions among the Indians. In courage and professional skill he was a formidable rival to Carson, and constantly afterwards was among the best and most efficient of the party, and in difficult situations was of incalculable value.

At the end of two days, which was allowed to my animals for necessary repose, all the arrangements had been completed, and on the afternoon of the 26th we resumed our respective routes.

The following days we continued our march westward over comparative plains, and, fording the Cache-à-la-Poudre on the morning of the 28th, entered the Black Hills, and nooned on this stream in the mountains beyond them. Passing over a fine large bottom in the afternoon, we reached a place where the river was shut up in the hills; and, ascending a ravine, made a laborious and very difficult passage around by a gap, striking the river about dusk. A little labor, however, would remove this difficulty, and render the road to this point a very excellent one. The evening closed in dark with rain, and the mountains looked gloomy.

Leaving our encampment about seven in the morning, we traveled until three in the afternoon along the river, which, for the distance of about six miles, runs directly through a spur of the main mountains.

We were compelled by the nature of the ground to cross the river eight or nine times, at difficult, deep, and rocky fords, the stream running with great force, swollen by the rains—a true mountain torrent, only forty or fifty feet wide. It was a mountain valley of the narrowest kind—almost a chasm—and the scenery very wild and beautiful. Towering mountains rose round about; their sides sometimes dark with forests of pine, and sometimes with lofty precipices, washed by the river; while below, as if they indemnified themselves in luxuriance for the scanty space, the green river-bottom was covered with a wilderness of flowers, their tall spikes sometimes rising above our heads as we rode among them. A profusion of blossoms on a white flowering vine, (*clematis lasiantha*), which was abundant along the river, contrasted handsomely with the green foliage of the trees. The mountains appeared to be composed of a greenish-gray and red granite, which in some places appeared to be in a state of decomposition, making a red soil.

Emerging from the mountains, we entered a region of bright, fair

weather. In my experience in this country, I was forcibly impressed with the different character of the climate on opposite sides of the Rocky Mountain range. The vast prairie plain on the east is like the ocean; the rain and clouds from the constantly evaporating snow of the mountains rushing down into the heated air of the plains, on which you will have occasion to remark the frequent storms of rain we encountered during our journey.

As we emerged on a small tributary of the Laramie river, coming in sight of its principal stream, the flora became perfectly magnificent; and we congratulated ourselves, as we rode along our pleasant road, that we had substituted this for the uninteresting country between Laramie Hills and the Sweet Water valley. We had no meat for supper last night or breakfast this morning, and were glad to see Carson come in at noon with a good antelope.

The artemisia now began to make its appearance in compact fields; and we were about to quit for a long time this country of excellent pasturage and brilliant flowers. Ten or twelve buffalo bulls were seen during the afternoon; and we were surprised by the appearance of a large red ox. We gathered around him as if he had been an old acquaintance, with all our domestic feelings as much awakened as if we had come in sight of an old farm-house. He had probably made his escape from some party of emigrants on Green river; and, with a vivid remembrance of some old green field, he was pursuing the straightest course for the frontier that the country admitted. We carried him along with us as a prize; and, when it was found in the morning that he had wandered off, I would not let him be pursued, for I would rather have gone through a starving time of three entire days, than let him be killed after he had successfully run the gauntlet so far among the Indians. I have been told by Mr. Bent's people of an ox born and raised at St. Vrain's fort, which made his escape from them at Elm Grove, near the frontier, having come in that year with the wagons. They were on their way out, and saw occasionally places where he had eaten and laid down to rest; but did not see him for about 700 miles, when they overtook him on the road, traveling along to the fort, having unaccountably escaped Indians and every other mischance.

A successful day's hunt had kept our hunters occupied until late, and they slept out, but rejoined us at daybreak, when, finding ourselves only about a mile from the river, we followed the ravine down, and camped in a cottonwood grove on a beautiful grassy bottom, where our animals indemnified themselves for the scanty fare of the past night. It was quite a pretty and pleasant place; a narrow strip of prairie, about five hundred yards long, terminated at the ravine where we entered by high precipitous hills closing in upon the river, and at the upper end by a ridge of low rolling hills.

As we had a large supply of meat in the camp, which it was necessary to dry, and the surrounding country appeared to be well stocked with buffalo, which it was probable, after a day or two, we would not see again until our return to the Mississippi waters, I determined to make here a provision of dried meat, which would be necessary for our subsistence in

the region we were about entering, which was said to be nearly destitute of game. Scaffolds were accordingly soon erected, fires made, and the meat cut into thin slices to be dried; and all were busily occupied, when the camp was thrown into a sudden tumult, by a charge from about seventy mounted Indians, over the low hills at the upper end of the little bottom. Fortunately, the guard, who was between them and our animals, had caught a glimpse of an Indian's head, as he raised himself in his stirrups to look over the hill, a moment before he made the charge, and succeeded in turning the band into the camp, as the Indians charged into the bottom with the usual yell. Before they reached us, the grove on the verge of the little bottom was occupied by our people, and the Indians brought to a sudden halt, which they made in time to save themselves from a howitzer shot, which would undoubtedly have been very effective in such a compact body; and further proceedings were interrupted by their signs for peace. They proved to be a war party of the Arapaho and Cheyenne Indians, and informed us that they had charged upon the camp under the belief that we were hostile Indians, and had discovered their mistake only at the moment of the attack—an excuse which policy required us to receive as true, though under the full conviction that the display of our little howitzer, and our favorable position in the grove, certainly saved our horses, and probably ourselves, from their marauding intentions. They had been on a war party, and had been defeated, and were consequently in the state of mind which aggravates their innate thirst for plunder and blood. Their excuse, however, was taken in good part, and the usual evidences of friendship interchanged. The pipe went round, provisions were spread, and the tobacco and goods furnished the customary presents, which they look for even from traders, and much more from government authorities.

They were returning from an expedition against the Shoshonee Indians, one of whose villages they had surprised, at Bridger's fort, on Ham's fork of Green river, (in the absence of the men, who were engaged in an antelope surround,) and succeeded in carrying off their horses, and taking several scalps. News of the attack reached the Snakes immediately, who pursued and overtook them, and recovered their horses; and, in the running fight which ensued, the Arapahoes had lost several men killed, and a number wounded, who were coming on more slowly with a party in the rear. Nearly all the horses they had brought off were the property of the whites at the fort. After remaining until nearly sunset, they took their departure; and the excitement which their arrival had afforded subsided into our usual quiet, a little enlivened by the vigilance rendered necessary by the neighborhood of our uncertain visitors.

The morning of the 13th of August was clear and cold, there being a white-frost, and the thermometer, a little before sunrise, standing at 36° 5'. Leaving this encampment, (our last on the waters which flow towards the rising sun,) we took our way along the upland, towards the dividing ridge which separates the Atlantic from the Pacific waters, and crossed it by a road some miles further south than the one we had followed on our return in 1842. We crossed very near the Table Mountain, at the southern extremity of the South Pass, which is near twenty miles in

width, and already traversed by several different roads. Selecting, as well as I could, in the scarcely distinguishable ascent, what might be considered the dividing ridge in this remarkable depression in the mountain, I took a barometrical observation, which gave 7,490 feet for the elevation above the Gulf of Mexico. You will remember that, in my report of 1842, I estimated the elevation of this pass at about 7,000 feet; a correct observation with a good barometer enables me to give it with more precision. Its importance, as the great gate through which commerce and traveling may hereafter pass between the valley of the Mississippi and the North Pacific, justifies a precise notice of its locality and distance from leading points, in addition to this statement of its elevation. As stated in the report of 1842, its latitude, at the point where we crossed, is $42^{\circ} 24' 32''$; its longitude $109^{\circ} 26' 00''$; its distance from the mouth of the Kansas, by the common traveling route, 962 miles; from the mouth of the Great Platte, along the valley of that river, according to our survey of 1842, 882 miles; and its distance from St. Louis about 400 miles more by the Kansas, and about 700 by the Great Platte route; these additions being steamboat conveyance in both instances. From this pass to the mouth of the Oregon is about 1,400 miles by the common traveling route; so that under a general point of view, it may be assumed to be about half-way between the Mississippi and the Pacific ocean, on the common traveling route.

An hour's travel on the morning of the 21st, brought us into the fertile and picturesque valley of Bear river, the principal tributary to the Great Salt Lake. The stream is here two hundred feet wide, fringed with willows and occasional groups of hawthorns. We were now entering a region which, for us, possessed a strange and extraordinary interest. We were upon the waters of the famous lake which forms a salient point among the remarkable geographical features of the country, and around which the vague and superstitious accounts of the trappers had thrown a delightful obscurity, which we anticipated pleasure in dispelling, but which, in the mean time, left a crowded field for the exercise of our imagination.

In our occasional conversations with the few old hunters who had visited the region, it had been a subject of frequent speculation; and the wonders which they related were not the less agreeable because they were highly exaggerated and impossible.

Hitherto this lake had been seen only by trappers who were wandering through the country in search of new beaver-streams, caring very little for geography; its islands had never been visited; and none were to be found who had entirely made the circuit of its shores; and no instrumental observations or geographical survey, of any description, had ever been made anywhere in the neighboring region. It was generally supposed that it had no visible outlet; but among the trappers, including those in my own camp, were many who believed that somewhere on its surface was a terrible whirlpool, through which its waters found their way to the ocean by some subterranean communication. All these things had made a frequent subject of discussion in our desultory conversations around the fires at night; and my own mind had become tolerably well filled with

their indefinite pictures, and insensibly colored with their romantic descriptions, which, in the pleasure of excitement, I was well disposed to believe, and half expected to realize.

Where we descended into this beautiful valley, it is three to four miles in breadth, perfectly level, and bounded by mountainous ridges, one above another, rising suddenly from the plain.

We continued our road down the river, and at night encamped with a family of emigrants—two men, women, and several children—who appeared to be bringing up the rear of the great caravan. I was struck with the fine appearance of their cattle, some six or eight yoke of oxen, which really looked as well as if they had been all the summer at work on some good farm. It was strange to see one small family traveling along through such a country, so remote from civilization. Some nine years since, such a security might have been a fatal one, but since their disastrous defeats in the country a little north, the Blackfeet have ceased to visit these waters. Indians, however, are very uncertain in their localities; and the friendly feelings, also, of those now inhabiting it may be changed.

Crossing, in the afternoon of the next day, the point of a narrow spur, we descended into a beautiful bottom, formed by a lateral valley, which presented a picture of home beauty that went directly to our hearts. The edge of the wood for several miles along the river, was dotted with the white covers of emigrant wagons, collected in groups at different camps, where the smoke was rising lazily from the fires, around which the women were occupied in preparing the evening meal, and the children playing in the grass; and herds of cattle, grazing about in the bottom, had an air of quiet security, and civilized comfort, that made a rare sight for the traveler in such a remote wilderness.

In common with all the emigration, they had been reposing for several days in this delightful valley, in order to recruit their animals on its luxuriant pasturage after their long journey, and prepare them for the hard travel along the comparatively sterile banks of the Upper Columbia. At the lower end of this extensive bottom, the river passes through an open canon, where there were high, verticle rocks to the water's edge, and the road here turns up a broad valley to the right. It was already near sunset; but, hoping to reach the river again before night, we continued our march along the valley, finding the road tolerably good, until we arrived at a point where it crosses the ridge by an ascent of a mile in length, which was so very steep and difficult for the gun and carriage, that we did not reach the summit until dark.

It was absolutely necessary to descend into the valley for water and grass; and we were obliged to grope our way in the darkness down a very steep, bad mountain, reaching the river at about ten o'clock. It was late before our animals were gathered into the camp, several of those which were very weak being necessarily left to pass the night on the ridge; and we sat down again to a midnight supper. The road, in the morning, presented an animated appearance. We found that we had encamped near a large party of emigrants; and a few miles below, another party was already in motion. Here the valley had resumed its

usual breadth, and the river swept off along the mountains on the western side the road continuing directly on.

In about an hour's travel we met several Shoshonee Indians, who informed us that they belonged to a large village which had just come into the valley from the mountain to the westward, where they had been hunting antelope and gathering service-berries. Glad at the opportunity of seeing one of their villages, and in the hope of purchasing from them a few horses, I turned immediately off into the plain towards their encampment, which was situated on a small stream near the river.

We had approached within something more than a mile of the village, when suddenly a single horseman emerged from it at full speed, followed by another and another in rapid succession; and then party after party poured into the plain, until, when the foremost rider reached us, all the whole intervening plain was occupied by a mass of horsemen, which came charging down upon us with guns and naked swords, lances, and bows and arrows—Indians entirely naked, and warriors fully dressed for war, with the long red streamers of their war-bonnets reaching nearly to the ground, all mingled together in the bravery of savage warfare. They had been thrown into a sudden tumult by the appearance of our flag, which, among these people, is regarded as an emblem of hostility—it being usually borne by the Sioux and the neighboring mountain Indians, when they come here to war; and we had, accordingly, been mistaken for a body of their enemies. A few words from the chief quieted the excitement; and the whole band, increasing every moment in number, escorted us to their encampment, where the chief pointed out a place for us to encamp, near his own lodge, and we made known our purpose in visiting the village. In a very short time we purchased eight horses, for which we gave in exchange blankets, red and blue cloth, beads, knives, and tobacco, and the usual other articles of Indian traffic. We obtained from them also a considerable quantity of berries, of different kinds, among which service-berries were the most abundant; and several kinds of roots and seeds, which we could eat with pleasure, as any kind of vegetable food was gratifying to us. I ate here, for the first time, the *kooyah*, or *tobacco-root*, (*valeriana edulis*),—the principal edible root among the Indians who inhabit the upper waters of the streams on the western side of the mountains. It has a very strong and remarkably peculiar taste and odor, which I can compare to no other vegetable that I am acquainted with, and which to some persons is extremely offensive. It was characterized by Mr. Preuss as the most horrid food he had ever put in his mouth; and when, in the evening, one of the chiefs sent his wife to me with a portion which she had prepared as a delicacy to regale us, the odor immediately drove him out of the lodge; and frequently afterwards he used to beg that when those who liked it had taken what they desired, it might be sent away. To others, however, the taste is rather an agreeable one; and I was afterwards glad when it formed an addition to our scanty meals. It is full of nutriment; and in its unprepared state is said by the Indians to have very strong poisonous qualities, of which it is deprived by a peculiar process, being baked in the ground for about two days.

The morning of the 24th was disagreeably cool, with an easterly wind, and very smoky weather. We made a late start from the village, and, regaining the road, (on which, during all the day, were scattered the emigrant wagons,) we continued on down the valley of the river, bordered by high and mountainous hills, on which fires are seen at the summit.

In about six miles travel from our encampment, we reached one of the points in our journey to which we had always looked forward with great interest—the famous *Beer Springs*. The place in which they are situated is a basin of mineral waters enclosed by the mountains, which sweep around a circular bend of Bear river, here at its most northern point, and which, from a northern, in the course of a few miles acquires a southern direction towards the Great Salt Lake. A pretty little stream of clear water enters the upper part of the basin, from an open valley in the mountains, and, passing through the bottom, discharges into Bear river. Crossing this stream, we descended a mile below, and made our encampment in a grove of cedar immediately at the Beer springs, which, on account of the effervescing gas and acid taste, have received their name from the voyageurs and trappers of the country, who, in the midst of their rude and hard lives, are fond of finding some fancied resemblance to the luxuries they rarely have the fortune to enjoy.

Although somewhat disappointed in the expectations which various descriptions had led me to form of unusual beauty of situation and scenery, I found it altogether a place of very great interest; and a traveler for the first time in a volcanic region remains in a constant excitement, and at every step is arrested by something remarkable and new. There is a confusion of interesting objects gathered together in a small space. Around the place of encampment the Beer springs were numerous; but, as far as we could ascertain, were confined entirely to that locality in the bottom. In the bed of the river, in front, for a space of several hundred yards, they were very abundant; the effervescing gas rising up and agitating the water in countless bubbling columns. In the vicinity round about were numerous springs of an entirely different and equally marked mineral character. In a rather picturesque spot, about 1,300 yards below our encampment, and immediately on the river bank, is the most remarkable spring of the place. In an opening on the rock, a white column of scattered water is thrown up, in form like a *jet-d'eau*, to a variable height of about three feet, and, though it is maintained in a constant supply, its greatest height is only attained at regular intervals, according to the action of the force below. It is accompanied by a subterranean noise, which, together with the motion of the water, makes very much the impression of a steamboat in motion; and, without knowing that it had been already previously so called, we gave to it the name of the *Steamboat Spring*. The rock through which it is forced is slightly raised in a convex manner, and gathered at the opening into an unmouthed form, and is evidently formed by a continued deposition from the water, and colored bright red by oxide of iron. It is a hot spring, and the water has a pungent and disagreeable metallic taste, leaving a burning effect on the tongue. Within perhaps two yards of the *jet-d'eau*

is a small hole of about an inch in diameter, through which, at regular intervals, escapes a blast of hot air, with a light wreath of smoke, accompanied by a regular noise. This hole had been noticed by Dr. Wislizenus, a gentleman who had several years since passed by this place, and who remarked, with very nice observation, that smelling the gas which issued from the orifice produced a sensation of giddiness and nausea. Mr. Preuss and myself repeated the observation, and were so well satisfied with its correctness, that we did not find it pleasant to continue the experiment, as the sensation of giddiness which it produced was certainly strong and decided. A huge emigrant wagon, with a large and diversified family, had overtaken us and halted to noon at our encampment; and, while we were sitting at the spring, a band of boys and girls, with two or three young men, came up, one of whom I asked to stoop down and smell the gas, desirous to satisfy myself further of its effects. But his natural caution had been awakened by the singular and suspicious features of the place, and he declined my proposal decidedly, and with a few indistinct remarks about the devil, whom he seemed to consider the *genius loci*. The ceaseless motion and the play of the fountain, the red rock and the green trees near, make this a picturesque spot.

Scattered over the great region west of the Rocky Mountains, and south of the Great Snake river, are numerous Indians whose subsistence is almost solely derived from roots and seeds, and such small animals as chance and great good fortune sometimes bring within their reach. They are miserably poor, armed only with bows and arrows, or clubs; and, as the country they inhabit is almost destitute of game, they have no means of obtaining better arms. In the northern part of the region just mentioned, they live generally in solitary families; and farther to the south they are gathered together in villages. Those who live together in villages, strengthened by association, are in exclusive possession of the more genial and richer parts of the country; while the others are driven to the ruder mountains, and to the more inhospitable parts of the country.

Roots, seeds, and grass, every vegetable that affords any nourishment, and every living animal thing, insect or worm, they eat. Nearly approaching to the lower animal creation, their sole employment is to obtain food; and they are constantly occupied in struggling to support existence.

A little affluent brought us to a larger stream, down which we traveled through a more open bottom, on a level road, where heavily-laden wagons could pass without obstacle. The hills on the right grew lower, and, on entering a more open country, we discovered a Shoshonee village; and being desirous to obtain information, and purchase from them some root and berries, we halted on the river, which was lightly wooded with cherry, willow, maple, service-berry, and aspen. A meridian observation of the sun, which I obtained here, gave $42^{\circ} 14' 22''$ for our latitude, and the barometer indicated a height of 5,170 feet. A number of Indians came immediately over to visit us, and several men were sent to the village with goods, tobacco, knives, cloth, vermilion, and the usual trinkets, to exchange for provisions. But they had no game of any kind; and it was difficult to obtain any roots from them, as they were miserably poor, and

had but little to spare from their winter stock of provisions. Several of the Indians drew aside their blankets, showing me their lean and bony figures; and I would not any longer tempt them with a display of our merchandise to part with their wretched subsistence, when they gave as a reason that it would expose them to temporary starvation. A great portion of the region inhabited by this nation, formerly abounded in game—the buffalo ranging about in herds, as we had found them on the eastern waters, and the plains dotted with scattered bands of antelope; but so rapidly have they disappeared within a few years, that now, as we journeyed along, an occasional buffalo skull and a few wild antelope were all that remained of the abundance which had covered the country with animal life.

The extraordinary rapidity with which the buffalo is disappearing from our territories will not appear surprising when we remember the great scale on which their destruction is yearly carried on. With inconsiderable exceptions, the business of the American trading-posts is carried on in their skins; every year the Indian villages make new lodges, for which the skin of the buffalo furnishes the material; and in that portion of the country where they are still found, the Indians derive their entire support from them, and slaughter them with a thoughtless and abominable extravagance. Like the Indians themselves, they have been a characteristic of the Great West; and as, like them, they are visibly diminishing, it will be interesting to throw a glance backward through the last twenty years, and give some account of their former distribution through the country, and the limit of their western range.

The information is derived principally from Mr. Fitzpatrick, supported by my own personal knowledge and acquaintance with the country. Our knowledge does not go farther back than the spring of 1824, at which time the buffalo were spread in immense numbers over the Green River and Bear River valleys, and through all the country lying between the Colorado, or Green river of the Gulf of California, and Lewis' Fork of the Columbia river; the meridian of Fort Hall then forming the western limit of their range. The buffalo then remained for many years in this country, and frequently moved down the valley of the Columbia, on both sides of the river, as far as the *Fishing Falls*. Below this point they never descended in any numbers. About the year 1834 or 1835 they began to diminish very rapidly, and continued to decrease until 1838 or 1840, when, with the country we have just described, they entirely abandoned all the waters of the Pacific north of Lewis' Fork of the Columbia. At that time, the Flathead Indians were in the habit of finding the buffalo on the heads of Salmon river, and other streams of the Columbia, but now they never meet with them farther west than the three forks of the Missouri, or the plains of the Yellow-stone river.

In the course of our journey it will be remarked that the buffalo have not entirely abandoned the waters of the Pacific, in the Rocky Mountain region south of the Sweet Water, as in the country north of the Great Pass. This partial distribution can only be accounted for in the great pastoral beauty of that country, which bears marks of having been one of their favorite haunts, and by the fact that the white hunters have more

frequented the northern than the southern region—it being north of the South Pass that the hunters, trappers, and traders have had their rendezvous for many years past; and from that section, also, the greater portion of the beaver and rich furs were taken, although always the most dangerous as well as the most profitable hunting-ground.

In that region lying between the Green or Colorado river and the head-waters of the Rio del Norte, over the *Yampah' Kooyah, White,* and *Grand* rivers—all of which are the waters of the Colorado—the buffalo never extended so far to the westward as they did on the waters of the Columbia; and only in one or two instances have they been known to descend as far west as the mouth of White river. In traveling through the country west of the Rocky Mountains, observation readily led me to the impression that the buffalo had, for the first time, crossed that range to the waters of the Pacific only a few years prior to the period we are considering; and in this opinion I am sustained by Mr. Fitzpatrick, and the older trappers in that country. In the region west of the Rocky Mountains, we never meet with any of the ancient vestiges which, throughout all the country lying upon their eastern waters, are found in the *great highways*, continuous for hundreds of miles, always several inches, and sometimes several feet in depth, which the buffalo have made in crossing from one river to another, or traversing the mountain ranges. The Snake Indians, more particularly those low down upon Lewis' Fork, have always been very grateful to the American trappers, for the great kindness (as they frequently expressed it) which they did to them, in driving the buffalo so low down the Columbia river.

The extraordinary abundance of the buffalo on the east side of the Rocky Mountains, and their extraordinary diminution, will be made clearly evident from the following statements: At any time between the years 1824 and 1836, a traveler might start from any given point south or north in the Rocky Mountain range, journeying by the most direct route to the Missouri river; and during the whole distance, his road would always be among large bands of buffalo, which would never be out of his view until he arrived almost within sight of the abodes of civilisation.

At this time, the buffalo occupy but very limited space, principally along the eastern base of the Rocky Mountains, sometimes extending at their southern extremity to a considerable distance into the plains between the Platte and Arkansas rivers, and along the eastern frontier of New Mexico as far south as Texas.

The following statement, which I owe to the kindness of Mr. Sanford, a partner in the American Fur Company, will further illustrate this subject, by extensive knowledge acquired during several years of travel through the region inhabited by the buffalo:

"The total amount of robes annually traded by ourselves and others will not be found to differ much from the following statement:

	ROBES.
American Fur Company,	70,000
Hudson's Bay Company,	10,000
All other companies, probably,	10,000
Making a total of	90,000

as an average annual return for the last eight or ten years.

"In the northwest, the Hudson's Bay Company purchase from the Indians but a very small number—their only market being Canada, to which the cost of transportation nearly equals the produce of the fur; and it is only within a very recent period that they have received buffalo robes in trade; and out of the great number of buffalo annually killed throughout the extensive region inhabited by the Camanches and other kindred tribes, no robes whatever are furnished for trade. During only four months of the year, (from November until March,) the skins are good for dressing; those obtained in the remaining eight months are valueless to traders; and the hides of bulls are never taken off or dressed as robes at any season. Probably not more than one-third of the skins are taken from the animals killed, even when they are in good season, the labor of preparing and dressing the robes being very great; and it is seldom that a lodge trades more than twenty skins in a year. It is during the summer months, and in the early part of autumn, that the greatest number of buffalo are killed, and yet at this time a skin is never taken for the purpose of trade."

From these data, which are certainly limited, and decidedly within bounds, the reader is left to draw his own inference of the immense number annually killed.

In 1842, I found the Sioux Indians of the Upper Platte *demonies*, as their French traders expressed it, with the failure of the buffalo; and in the following year, large villages from the Upper Missouri came over to the mountains at the heads of the Platte, in search of them. The rapidly progressive failure of their principal, and almost their only means of subsistence, has created great alarm among them; and at this time there are only two modes presented to them, by which they see a good prospect for escaping starvation: one of these is to rob the settlements along the frontier of the States; and the other is to form a league between the various tribes of the Sioux nation, the Cheyennes, and Arapahoes, and make war against the Crow nation, in order to take from them that country, which is now the best buffalo country in the west. This plan they now have in consideration; and it would probably be a war of extermination, as the Crows have long been advised of this state of affairs, and say that they are perfectly prepared. These are the best warriors in the Rocky Mountains, and are now allied with the Snake Indians; and it is probable that their combination would extend itself to the Utahs, who have long been engaged in war against the Sioux. It is in this section of country that my observation formerly led me to recommend the establishment of a military post.

The farther course of our narrative will give fuller and more detailed information of the present disposition of the buffalo in the country we visited.

Among the useful things which formed a portion of our equipage, was an India-rubber boat, eighteen feet long, made somewhat in the form of a bark canoe of the northern lakes. The sides were formed by two tight cylinders, eighteen inches in diameter, connected with others forming the bow and stern. To lessen the danger from accidents to the boat, these were divided into four different compartments, and the interior space

was sufficiently large to contain five or six persons, and a considerable weight of baggage. The Roseaux being too deep to be forded, our boat was filled with air, and in about one hour all the equipage of the camp, carriage and gun included, ferried across. Thinking that perhaps in the course of the day we might reach the outlet of the lake, I got into the boat with Basil Lajeunesse, and paddled down Bear river, intending at night to rejoin the party, which in the mean time proceeded on its way. The river was from sixty to one hundred yards broad, and the water so deep, that even on the comparatively shallow points we could not reach the bottom with fifteen feet. On either side were alternately low bottoms and willow points, with an occasional high prairie; and for five or six hours we followed slowly the winding course of the river, which crept along with a sluggish current among frequent *detours* several miles around, sometimes running for a considerable distance directly up the valley. As we were stealing quietly down the stream, trying in vain to get a shot at a strange large bird that was numerous among the willows, but very shy, we came unexpectedly upon several families of *Root-Diggers*, who were encamped among the rushes on the shore, and appeared very busy about several wiers or nets which had been rudely made of canes and rushes for the purpose of catching fish. They were very much startled at our appearance, but we soon established an acquaintance; and finding that they had some roots, I promised to send some men with goods to trade with them. They had the usual very large heads, remarkable among the Digger tribe, with matted hair, and were almost entirely naked: looking very poor and miserable, as if their lives had been spent in the rushes where they were, beyond which they seemed to have very little knowledge of any thing. From the words we could comprehend, their language was that of the Snake Indians.

Our boat moved so heavily, that we had made very little progress; and, finding that it would be impossible to overtake the camp, as soon as we were sufficiently far below the Indians, we put to the shore near a high prairie bank, hauled up the boat, and *cached* our effects in the willows. Ascending the bank, we found that our desultory labor had brought us only a few miles in a direct line; and, going out into the prairie, after a search we found the trail of the camp, which was nowhere in sight, but had followed the general course of the river in a large circular sweep which it makes at this place. The sun was about three hours high when we found the trail; and as our people had passed early in the day, we had the prospect of a vigorous walk before us.

After a rapid walk of about fifteen miles, we caught sight of the camp-fires among clumps of willows, just as the sun had sunk behind the mountains on the west side of the valley, filling the clear sky with a golden yellow. These last rays, to us so precious, could not have revealed a more welcome sight. To the traveler and the hunter, a camp-fire in the lonely wilderness is always cheering; and to ourselves, in our present situation, after a hard march in a region of novelty, approaching the *debouches* of a river, in a lake of almost fabulous reputation, it was doubly so. A plentiful supper of aquatic birds, and the interest of the scene, soon dissipated fatigue; and I obtained during the night emersions of

the second, third, and fourth satellites of Jupiter, with observations for time and latitude.

Leaving encampment early on the 6th of September, we directed our course for a peninsular *butte* across a low shrubby plain, crossing in the way a slough-like creek with miry banks, and wooded with thickets of thorn, (*crataegus*.) which were loaded with berries. We reached the *butte* without any difficulty, and, ascending to the summit, immediately at our feet beheld the object of our anxious search—the waters of the Inland Sea, stretching in still and solitary grandeur far beyond the limit of our vision. It was one of the great points of the exploration; and as we looked eagerly over the lake in the first emotions of excited pleasure, I am doubtful if the followers of Balboa felt more enthusiasm, when from the heights of the Andes, they saw for the first time the great Western ocean. It was certainly a magnificent object, and a noble *terminus* to this part of our expedition; and to travelers so long shut up among mountain ranges, a sudden view over the expanse of silent waters had in it something sublime. Several large islands raised their rocky heads out of the waves; but whether or not they were timbered, was still left to our imagination, as the distance was too great to determine if the dark hues upon them were woodland or naked rock. During the day the clouds had been gathering black over the mountains to the westward, and, while we were looking, a storm burst down with sudden fury upon the lake, and entirely hid the islands from our view. So far as we could see, along the shores there was not a solitary tree, and but little appearance of grass; and on Weber's fork, a few miles below our last encampment, the timber was gathered into groves, and then disappeared entirely. As this appeared to be the nearest point to the lake, where a suitable camp could be found, we directed our course to one of the groves, where we found a handsome encampment, with good grass and an abundance of rushes.

The next day was spent in active preparation for our intended voyage on the lake. On the edge of the stream a favorable spot was selected in a grove, and, felling the timber, we made a strong *corral*, or horse-pen, for the animals, and a little fort for the people who were to remain. We were now probably in the country of the Utah Indians, though none reside on the lake. The India-rubber boat was repaired with prepared cloth and gum, and filled with air, in readiness for the next day.

The provisions which Carson brought with him being now exhausted, and our stock reduced to a small quantity of roots, I determined to retain with me only a sufficient number of men for the execution of our design; and accordingly seven were sent back to Fort Hall, under the guidance of François Lajeunesse, who, having been for many years a trapper in the country, was considered an experienced mountaineer. Though they were provided with good horses, and the road was a remarkably plain one of only four days' journey for a horseman, they became bewildered, (as we afterward learned,) and, losing their way, wandered about the country in parties of one or two, reaching the fort about a week afterward. Some straggled in of themselves, and the others were brought in by Indians who had picked them up on Snake River, about

sixty miles below the fort, traveling along the emigrant road in full march for the Lower Columbia. The leader of this adventurous party was François.

Hourly barometrical observations were made during the day, and, after the departure of the party for Fort Hall, we occupied ourselves in continuing our little preparations, and in becoming acquainted with the country in the vicinity. The bottoms along the river were timbered with several kinds of willow, hawthorn, and fine cottonwood trees (*populus canadensis*), with remarkably large leaves, and sixty feet in height by measurement.

We formed now but a small family. With Mr. Preuss and myself, Carson, Bernier, and Basil Lajeunesse, had been selected for the boat expedition—the first attempted on this interior sea; and Badeau, with Derosier, and Jacob, (the colored man,) were to be left in charge of the camp. We were favored with most delightful weather. To-night there was a brilliant sunset of golden orange and green, which left the western sky clear and beautifully pure; but clouds in the east made me lose an occultation. The summer frogs were singing around us, and the evening was very pleasant, with a temperature of 60°—a night of a more southern autumn. For our supper we had *yampah*, the most agreeably flavored of the roots, seasoned by a small fat duck, which had come in the way of Jacob's rifle. Around our fire to-night were many speculations on what to-morrow would bring forth, and in our busy conjectures we fancied that we should find every one of the large islands a tangled wilderness of trees and shrubbery, teeming with game of every description that the neighboring region afforded, and which the foot of a white man or Indian had never violated. Frequently, during the day, clouds had rested on the summits of their lofty mountains, and we believed that we should find clear streams and springs of fresh water; and we indulged in anticipations of the luxurious repast with which we were to idemnify ourselves for past privations. Neither, in our discussions, were the whirlpool and other mysterious dangers forgotten, which Indian and hunters' stories attributed to this unexplored lake. The men had found that, instead of being strongly sewed, (like that of the preceding year, which had so triumphantly rode the canons of the upper Great Platte,) our present boat was only pasted together in a very insecure manner, the maker having been allowed so little time in the construction, that he was obliged to crowd the labor of two months into several days. The insecurity of the boat was sensibly felt by us; and, mingled with the enthusiasm and excitement that we all felt at the prospect of an undertaking which had never before been accomplished, was a certain impression of danger, sufficient to give a serious character to our conversation. The momentary view which had been had of the lake the day before, its great extent and rugged islands, dimly seen amidst the dark waters in the obscurity of the sudden storm, were calculated to heighten the idea of undefined danger with which the lake was generally associated.

In view of our present enterprise, a part of the equipment of the boat had been made to consist in three air-tight bags, about three feet long, and capable each of containing five gallons. These had been filled with

water the night before, and were now placed in the boat, with our kiams ets and instruments, consisting of a sextant, telescope, spy-glass, thermometer, and barometer.

We left the camp at sunrise, and had a very pleasant voyage down the river, in which there was generally eight or ten feet of water, deepening as we neared the mouth in the latter part of the day. In the course of the morning we discovered that two of the cylinders leaked so much as to require one man constantly at the bellows, to keep them sufficiently full of air to support the boat. Although we had made a very early start, we loitered so much on the way—stopping every now and then, and floating silently along, to get a shot at a goose or duck—that it was late in the day when we reached the outlet. The river here divided into several branches, filled with fluvials, and so very shallow that it was with difficulty we could get the boat along, being obliged to get out and wade. We encamped on a low point among rushes and young willows, where was a quantity of drift-wood, which served for our fire. The evening was mild and clear; we made a pleasant bed of young willows; and geese and ducks enough had been killed for an abundant supper at night, and for breakfast the next morning. The stillness of the night was enlivened by millions of water-fowl.

The next day was clear and calm; the thermometer at sunrise at 49°. As is usual with the trappers on the eve of any enterprise, our people had made dreams, and theirs happened to be a bad one—one which always preceded evil—and consequently they looked very gloomy this morning; but we hurried through our breakfast, in order to make an early start, and have all the day before us for our adventure. The channel in a short distance became so shallow that our navigation was at an end, being merely a sheet of soft mud, with a few inches of water, and sometimes none at all, forming the low-water shore of the lake. All this place was absolutely covered with flocks of screaming plover. We took off our clothes, and, getting overboard, commenced dragging the boat—making, by this operation, a very curious trail, and a very disagreeable smell in stirring up the mud, as we sank above the knee at every step. The water here was still fresh, with only an insipid and disagreeable taste, probably derived from the bed of fetid mud. After proceeding in this way about a mile, we came to a small black ridge, on the bottom, beyond which the water became suddenly salt, beginning gradually to deepen, and the bottom was sandy and firm. It was a remarkable division, separating the fresh waters of the rivers from the briny water of the lake, which was entirely *saturated* with common salt. Pushing our little vessel across the narrow boundary, we sprang on board, and at length were afloat on the waters of the unknown sea.

We did not steer for the mountainous islands, but directed our course towards a lower one, which it had been decided we should first visit, the summit of which was formed like the crater at the upper end of Bear River Valley. So long as we could touch the bottom with our paddles, we were very gay; but gradually, as the water deepened, we became more still in our frail batteau of gum-cloth distended with air, and with pasted seams. Although the day was very calm, there was a considerable swell

on the lake; and there were white patches of foam on the surface, which were slowly moving to the southward, indicating the set of a current in that direction, and recalling the recollection of the whirlpool stories. The water continued to deepen as we advanced—the lake becoming almost transparently clear, of an extremely beautiful bright green color; and the spray, which was thrown into the boat and over our clothes, was directly converted into a crust of common salt, which covered also our hands and arms. “Captain,” said Carson, who for some time had been looking suspiciously at some whitening appearances outside the nearest islands, “what are those yonder?—won’t you take a look with the glass?” We ceased paddling for a moment, and found them to be the caps of the waves that were beginning to break under the force of a strong breeze that was coming up the lake.

The form of the boat seemed to be an admirable one, and it rode on the waves like a water-bird; but, at the same time, it was extremely slow in its progress. When we were a little more than half way across the reach, two of the divisions between the cylinders gave way, and it required the constant use of the bellows to keep in a sufficient quantity of air. For a long time we scarcely seemed to approach our island, but gradually we worked across the rougher sea of the open channel, into the smoother water under the lee of the island, and began to discover that what we took for a long row of pelicans, ranged on the beach, were only low cliffs whitened with salt by the spray of the waves; and about noon we reached the shore, the transparency of the water enabling us to see the bottom at a considerable depth.

It was a handsome broad beach where we landed, behind which the hill, into which the island was gathered, rose somewhat abruptly; and a point of rock at one end enclosed it in a sheltering way; and as there was an abundance of drift-wood along the shore, it offered us a pleasant encampment. We did not suffer our frail boat to touch the sharp rocks, but, getting overboard, discharged the baggage, and lifting it gently out of the water, carried it to the upper part of the beach, which was composed of very small fragments of rock.

Among the successive banks of the beach, formed by the accession of the waves, our attention, as we approached the island, had been attracted by one 10 to 20 feet in breadth, of a dark brown color. Being more closely examined, this was found to be composed, to the depth of seven or eight and twelve inches, entirely of the *larvæ* of insects, or, in common language, of the skins of worms, about the size of a grain of oats, which had been washed up by the waters of the lake.

Alluding to this subject some months afterwards, when traveling through a more southern portion of this region, in company with Mr. Joseph Walker, an old hunter, I was informed by him, that, wandering with a party of men in a mountain country east of the great California range, he surprised a party of several Indian families encamped near a small salt lake, who abandoned their lodges at his approach, leaving every thing behind them. Being in a starving condition, they were delighted to find in the abandoned lodges a number of skin bags, containing a quantity of what appeared to be fish, dried and pounded. On this

they made a hearty supper, and were gathering around an abundant breakfast the next morning, when Mr. Walker discovered that it was with these, or a similar worm, that the bags had been filled. The stomachs of the stout trappers were not proof against their prejudices, and the repulsive food was suddenly rejected. Mr. Walker had further opportunities of seeing these worms used as an article of food; and I am inclined to think they are the same as we saw, and appear to be a product of the salt lakes. It may be well to recall to mind that Mr. Walker was associated with Capt. Booneville in his expedition to the Rocky Mountains, and has since that time remained in the country, generally residing in some one of the Snake villages, when not engaged in one of his numerous trapping expeditions, in which he is celebrated as one of the best and bravest leaders who have ever been in the country.

The cliffs and masses of rock along the shore were whitened by an incrustation of salt where the waves dashed up against them; and the evaporating water, which had been left in holes and hollows on the surface of the rocks, was covered with a crust of salt about one-eighth of an inch in thickness. It appeared strange that, in the midst of this grand reservoir, one of our greatest wants lately had been salt. Exposed to be more perfectly dried in the sun, this became very white and fine, having the usual flavor of very excellent common salt, without any foreign taste; but only a little was collected for present use, as there was in it a number of small black insects.

Carrying with us the barometer and other instruments, in the afternoon we ascended to the highest point of the island—a bare, rocky peak, eight hundred feet above the lake. Standing on the summit, we enjoyed an extended view of the lake, enclosed in a basin of rugged mountains, which sometimes left marshy flats and extensive bottoms between them and the shore, and in other places came directly down into the water with bold and precipitous bluffs. Following with our glasses the irregular shores, we searched for some indications of a communication with other bodies of water, or the entrance of other rivers; but the distance was so great that we could make out nothing with certainty. To the southward, several peninsular mountains, 3,000 or 4,000 feet high, entered the lake, appearing, so far as the distance and our position enabled us to determine, to be connected by flats and low ridges with the mountains in the rear. These are probably the islands usually indicated on maps of this region as entirely detached from the shore. The season of our operations was when the waters were at their lowest stage. At the season of high waters in the spring, it is probable that the marshes and low grounds are overflowed, and the surface of the lake considerably greater. In several places the view was of unlimited extent—here and there a rocky islet appearing above the waters, at a great distance; and beyond, every thing was vague and undefined. As we looked over the vast expanse of water spread out beneath us, and strained our eyes along the silent shores over which hung so much doubt and uncertainty, and which were so full of interest to us, I could hardly repress the almost irresistible desire to continue our explorations; but the lengthening snow on the mountains was a plain indication of the advancing season, and our

frail linen boat appeared so insecure that I was unwilling to trust our lives to the uncertainties of the lake. I therefore unwillingly resolved to terminate our survey here, and remain satisfied for the present with what we had been able to add to the unknown geography of the region. We felt pleasure, also, in remembering that we were the first who, in the traditionary annals of the country, had visited the islands, and broken, with the cheerful sound of human voices, the long solitude of the place. From the point where we were standing, the ground fell off on every side to the water, giving us a perfect view of the island, which is twelve or thirteen miles in circumference, being simply a rocky hill, on which there is neither water nor trees of any kind; although the *Fremontia Vermicularis*, which was in great abundance, might easily be taken for timber at a distance. The plant seemed here to delight in a congenial air, growing in extraordinary luxuriance, seven to eight feet high, and was very abundant on the upper part of the island, where it was almost the only plant.

I accidentally left on the summit the brass cover to the object end of my spy-glass; and as it will probably remain their undisturbed by Indians, it will furnish matter of speculation to some future traveler. In our excursions about the island, we did not meet with any kind of animal; a magpie and another larger bird, probably attracted by the smoke of our fire, paid us a visit from the shore, and were the only living things seen during our stay. The rock constituting the cliffs along the shore where we were encamped, is a talcous rock, or steatite with brown spar.

At sunset, the temperature was 70° . We had arrived just in time to obtain a meridian altitude of the sun, and other observations were obtained this evening, which placed our camp in latitude $41^{\circ} 10' 42''$, and longitude $112^{\circ} 21' 05''$ from Greenwich. From a discussion of the barometrical observations made during our stay on the shores of the lake, we had adopted 4,200 feet for its elevation above the gulf of Mexico. In the first disappointment we felt from the dissipation of our dream of the fertile islands, I called this *Disappointment Island*.

Out of the drift-wood, we made ourselves pleasant little lodges, open to the water; and, after having kindled large fires to excite the wonder of any straggling savage on the lake shores, laid down, for the first time in a long journey, in perfect security, no one thinking about his arms. The evening was extremely bright and pleasant, but the wind rose during the night, and the waves began to break heavily on the shore, making our island tremble. I had not expected in our inland journey to hear the roar of an ocean surf; and the strangeness of our situation, and the excitement we felt in the associated interest of the place, made this one of the most interesting nights I made during our long expedition.

In the morning, the surf was breaking heavily on the shore, and we were up early. The lake was dark and agitated, and we hurried through our scanty breakfast, and embarked—having first filled one of the buckets with water from the lake, of which it was intended to make salt. The sun had risen by the time we were ready to start; and it was blowing a strong gale of wind, almost directly off the shore, and raising a considerable sea, in which our boat strained very much. It roughened

as we got away from the island, and it required all the efforts of the men to make any head against the wind and sea, the gale rising with the sun; and there was danger of being blown into one of the open reaches beyond the island. At the distance of half a mile from the beach, the depth of the water was 16 feet, with a clay bottom; but, as the working of the boat was very severe labor, and during the operation of sounding it was necessary to cease paddling, during which the boat lost considerable way, I was unwilling to discourage the men, and reluctantly gave up my intention of ascertaining the depth and the character of the bed. There was a general shout in the boat when we found ourselves in one fathom, and we soon after landed on a low point of mud, immediately under the *butte* of the peninsula, where we unloaded the boat, and carried the baggage about a quarter of a mile to firmer ground. We arrived just in time for meridian observation, and carried the barometer to the summit of the *butte*, which is 500 feet above the lake. Mr. Preuss set off on foot for the camp, which was about nine miles distant; Basil accompanying him, to bring back horses for the boat and baggage.

The rude-looking shelter we raised on the shore, our scattered baggage and boat lying on the beach, made quite a picture; and we called this the *Fisherman's camp*.

The horses arrived late in the afternoon, by which time the gale had increased to such a height that a man could scarcely stand before it; and we were obliged to pack our baggage hastily, as the rising water of the lake had already reached the point where we were halted. Looking back as we rode off, we found the place of recent encampment entirely covered. The low plain through which we rode to the camp was covered with a compact growth of shrubs of extraordinary size and luxuriance. The soil was sandy and saline; flat places, resembling the beds of ponds, that were bare of vegetation, and covered with a powdery white salt, being interspersed among the shrubs. We reached the camp in time to escape a thunder-storm which blackened the sky, and were received with a discharge of the howitzer by the people, who, having been unable to see any thing of us on the lake, had begun to feel some uneasiness.

We remained at this camp next day in order to obtain some further observations, and to boil down the water which had been brought from the lake, for a supply of salt. Roughly evaporated over the fire, the five gallons of water yielded fourteen pints of very fine-grained and very white salt, of which the whole lake may be regarded as a saturated solution. A portion of the salt thus obtained has been subjected to analysis, giving, in 100 parts, the following proportions:

Chloride of sodium, (common salt,)	- - - -	97.80
Chloride of calcium,	- - - -	0.61
Chloride of magnesium	- - - -	0.24
Sulphate of soda,	- - - -	0.23
Sulphate of lime,	- - - -	1.13
		<hr/> 100.00

The next day we continued up the valley, the soil being sometimes very black and good, occasionally gravelly, and occasionally a kind of

naked salt plains. We found on the way this morning a small encampment of two families of Snake Indians, from whom we purchased a small quantity of *kooyah*. They had piles of seeds, of three different kinds, spread out upon pieces of buffalo robe; and the squaws had just gathered about a bushel of the root of a thistle. They were about the ordinary size of carrots, and, as I have previously mentioned, are sweet and well flavored, requiring only a long preparation. They had a band of twelve or fifteen horses, and appeared to be growing in the sunshine with about as little labor as the plants they were eating.

Shortly afterwards we met an Indian on horseback who had killed an antelope, which we purchased of him for a little powder and some balls. We crossed the Roseaux, and encamped on the left bank; halting early for the pleasure of enjoying a wholesome and abundant supper, and were pleasantly engaged in protracting our unusual comfort, when Tabeau galloped into the camp with news that Mr. Fitzpatrick was encamped close by us with a good supply of provisions—flour, rice, and dried meat, and even a little butter. Excitement to-night made us all wakeful; and after a breakfast before sunrise the next morning, we were again on the road, and, continuing up the valley, crossed some high points of hills, and halted to noon on the same stream, near several lodges of the Snake Indians, from whom we purchased a bushel of service-berries, partially dried. Taking leave at this point of the waters of Bear river, and of the geographical basin which encloses the system of rivers and creeks which belong to the Great Salt Lake, and which so richly deserves a future detailed and ample exploration, I can say of it, in general terms, that the bottoms of this river, (Bear,) and of some of the creeks which I saw, form a natural resting and recruiting station for travelers, now, and in all time to come. The bottoms are extensive; water excellent; timber sufficient; the soil good, and well adapted to grains and grasses suited to such an elevated region. A military post, and a civilized settlement, would be of great value here; grass and salt so much abound. The lake will furnish exhaustless supplies of salt. All the mountains here are covered with a valuable nutritious grass, called bunch-grass, from the form in which it grows, which has a second growth in the fall. The beasts of the Indians were fat upon it; our own found it a good subsistence; and its quantity will sustain any amount of cattle, and make this truly a bucolic region.

At night scattered fires glimmered along the mountains, pointing out camps of the Indians; and we contrasted the comparative security in which we traveled through this country, with the guarded vigilance we were compelled to exert among the Sioux and other Indians on the eastern side of the Rocky Mountains.

After traveling seven or eight miles on the 18th, we emerged on the plains of the Columbia, in sight of the famous "*Three Buttes*," a well-known landmark in the country, distant about 45 miles. The French word *butte*, which so often occurs in this narrative, is retained from the familiar language of the country, and identifies the objects to which it refers. It is naturalized in the region of the Rocky Mountains, and, even if desirable to render it in English, I know of no word which would

be its precise equivalent. It is applied to the detached hills and ridges which rise rapidly, and reach too high to be called hills or ridges, and not high enough to be called mountains. *Knob*, as applied in the western states, is their descriptive term in English. *Cerro* is the Spanish term; but no translation or periphrases would preserve the identity of these picturesque landmarks, familiar to the traveler, and so often seen at a great distance. Covered as far as could be seen with artemisia, the dark and ugly appearance of this plain obtained for it the name of *Sage Desert*; and we were agreeably surprised, on reaching the Portneuf river, to see a beautiful green valley with scattered timber spread out beneath us, on which, about four miles distant, were glistening the white walls of the fort. The Portneuf runs along the upland plain nearly to its mouth, and an abrupt descent of perhaps two hundred feet brought us down immediately upon the stream, which at the ford is one hundred yards wide, and three feet deep, with clear water, swift current, and gravelly bed; but a little higher up the breadth was only about thirty-five yards, with apparently deep water.

In the bottom I remarked a very great number of springs and sloughs, with remarkably clear water and gravel beds. At sunset we encamped with Mr. Talbot and our friends who came on to Fort Hall when we went to the lake, and whom we had the satisfaction to find all well, neither party having met with any mischance in the interval of our separation. They, too, had had their share of fatigue and scanty provisions, as there had been very little game left on the trail of the populous emigration; and Mr. Fitzpatrick had rigidly husbanded our stock of flour and light provisions, in view of the approaching winter and the long journey before us.

I rode up to the fort, and purchased from Mr. Grant (the officer in charge of the post) several very indifferent horses, and five oxen, in very fine order, which were received at the camp with great satisfaction: and one being killed at evening, the usual gayety and good humor were at once restored. Night came in stormy.

We had a night of snow and rain, and the thermometer at sunrise was at 34° ; the morning was dark, with a steady rain, and there was still an inch of snow on the ground, with an abundance on the neighboring hills and mountains. The sudden change in the weather was hard for our animals, who trembled and shivered in the cold—sometimes taking refuge in the timber, and now and then coming out and raking the snow off the ground for a little grass, or eating the young willows.

The early approach of winter, and the difficulty of supporting a large party, determined me to send back a number of the men who had become satisfied that they were not fitted for the laborious service and frequent privation to which they were necessarily exposed, and which there was reason to believe would become more severe in the further extension of the voyage. I accordingly called them together, and, informing them of my intention to continue our journey during the ensuing winter, in the course of which they would probably be exposed to considerable hardship, succeeded in prevailing on a number of them to return voluntarily. Our preparations having been completed in the interval of our

stay here, both parties were ready this morning to resume their respective routes.

Except that there is a greater quantity of wood used in its construction, Fort Hall much resembles the other trading posts which have already been described, and would be another excellent post of relief for the emigration. It is in the low rich bottom of a valley, apparently 20 miles long, formed by the confluence of Portneuf river with Lewis' fork of the Columbia, which enters about nine miles below the fort, and narrowing gradually to the mouth of the Pannack river, where it has a breadth of only two or three miles. Allowing 50 miles for the road from the *Beer Springs* of Bear river to Fort Hall, its distance along the *traveled* road from the town of Westport on the frontier of Missouri, by way of Fort Laramie and the great South Pass, is 1,323 miles. Beyond this place, on the line of road along the *barren* valley of the Upper Columbia, there does not occur, for a distance of nearly 800 miles to the westward, a fertile spot of ground sufficiently large to produce the necessary quantity of grain, or pasturage enough to allow even a temporary repose to the emigrants. On their recent passage, they had been able to obtain, at very high prices and in insufficient quantity, only such assistance as could be afforded by a small and remote trading-post—and that a foreign one—which, in the supply of its own wants, had necessarily drawn around it some of the resources of civilization, but which obtained nearly all its supplies from the distant *dépôt* of Vancouver, by a difficult water-carriage of 250 miles up the Columbia river, and a land-carriage of 600 miles. An American military post, sufficiently strong to give to their road a perfect security against the Indian tribes, who are unsettled in locality and very *uncertain* in their disposition, and which, with the necessary facilities for the repair of their equipage, would be able to afford them relief in stock and grain from the produce of the post, would be of extraordinary value to the emigration. Such a post (and all others which may be established on the line to Oregon) would naturally form the *nucleus* of a settlement, at which supplies and repose would be obtained by the emigrant, or trading caravans, which may hereafter traverse these elevated, and, in many places, desolate and inhospitable regions.

Taking leave of the homeward party, we resumed our journey down the valley, the weather being very cold, and the rain coming in hard gusts, which the wind blew directly in our faces. We forded the Portneuf in a storm of rain, the water in the river being frequently up to the axles, and about 110 yards wide.

The road along the river bluffs had been occasionally bad; and imagining that some rough obstacles rendered such a detour necessary, we followed on the 28th for several miles a plain wagon-road leading up this stream, until we reached a point whence it could be seen making directly towards a low place in the range on the south side of the valley, and we became immediately aware that we were on a trail formed by a party of wagons, in company with whom we had encamped at Elm grove, near the frontier of Missouri, and which were proceeding to Upper California under the direction of Mr. Jos. Cniles. At the time of their departure,

no practicable passes were known in the Southern Rocky Mountains within the territory of the United States; and the probable apprehension of difficulty in attempting to pass near the settled frontier of New Mexico, together with the desert character of the unexplored region beyond, had induced them to take a more northern and circuitous route by way of Sweet Water pass and Fort Hall. They had still between them and the valley of the Sacramento a great mass of mountains, forming the *Sierra Nevada*, here commonly known as the *Great California Mountain*, and which were at this time considered as presenting an impracticable barrier to wheeled-carriages. Various considerations had suggested to them a division of the party; and a greater portion of the camp, including the wagons, with the mail and other stores, were now proceeding under the guidance of Mr. Joseph Walker, who had engaged to conduct them, by a long sweep to the southward, around what is called the *point of the mountain*; and, crossing through a pass known only to himself, gain the banks of the Sacramento by the valley of the San Joaquin. It was a long and hazardous journey for a party in which there were women and children. Sixty days was the shortest period of time in which they could reach the point of the mountain, and their route lay through a country inhabited by wild and badly-disposed Indians, and very poor in game; but the leader was a man possessing great and intimate knowledge of the Indians, with an extraordinary firmness and decision of character. In the mean time, Mr. Chiles had passed down the Columbia with a party of ten or twelve men, with the intention of reaching the settlements on the Sacramento by a more direct course, which indefinite information from hunters had indicated in the direction of the head-waters of the *Rivière aux Malheurs*; and having obtained there a reinforcement of animals, and a supply of provisions, meet the wagons before they should have reached the point of the mountain, at a place which had been previously agreed upon.

It was now no longer possible, as in our previous journey, to travel regularly every day, and find at any moment a convenient place for repose at noon or a camp at night; but the halting-places were now generally fixed along the road, by the nature of the country, at places, where, with water, there was a little scanty grass. Since leaving the American falls, the road had frequently been very bad; the many short, steep ascents, exhausting the strength of our worn-out animals, requiring always at such places the assistance of the men to get up each cart, one by one; and our progress with twelve or fourteen wheeled-carriages, though light and made for the purpose, in such a rocky country, was extremely slow; and I again determined to gain time by a division of the camp. Accordingly, to-day, the parties again separated, constituted very much as before—Mr. Fitzpatrick remaining in charge of the heavier baggage.

Our encampment on the first of October was about one mile below the *Fishing falls*—a series of cataracts with very inclined planes, which are probably so named because they form a barrier to the ascent of the salmon; and the great fisheries, from which the inhabitants of this barren region almost entirely derive a subsistence, commence at this place. These appeared to be unusually gay savages, fond of loud laughter; and,

in their apparent good nature and merry character, struck me as being entirely different from the Indians we had been accustomed to see. From several who visited our camp in the evening, we purchased, in exchange for goods, dried salmon. At this season they are not very fat, but we were easily pleased. The Indians made us comprehend, that when the salmon come up the river in the spring, they are so abundant that they merely throw in their spears at random, certain of bringing out a fish.

These poor people are but slightly provided with winter clothing; there is but little game to furnish skins for the purpose; and of a little animal which seemed to be the most numerous, it required 20 skins to make a covering to the knees. But they are still a joyous, talkative race, who grow fat and become poor with the salmon, which at least never fail them—the dried being used in the absence of the fresh. We are encamped immediately on the river bank, and with the salmon jumping up out of the water, and Indians paddling about in boats made of rushes, or laughing around the fires, the camp to-night has quite a lively appearance.

The barrenness of the country is in fine contrast to-day with the mingled beauty and grandeur of the river, which is more open than hitherto, with a constant succession of falls and rapids. Over the edge of the black cliffs, and out from their faces, are falling numberless streams and springs; and all the line of the river is in motion with the play of the water. In about seven miles we reached the most beautiful and picturesque fall I had seen on the river.

On the opposite side, the vertical fall is perhaps 18 feet high; and nearer, the sheet of foaming water is divided and broken into cataracts, where several little islands on the brink and in the river above, give it much picturesque beauty, and make it one of those places the traveler turns again and again to fix in his memory. There were several lodges of Indians here, from whom we traded salmon. Below this place the river makes a remarkable bend; and the road, ascending the ridge, gave us a fine view of the river below, intersected at many places by numerous fish dams. In the north, about 50 miles distant, were some high snowy peaks of the Salmon River mountains; and in the northeast, the last peak of the range was visible at the distance of perhaps 100 miles or more. The river hills consist of very broken masses of sand, covered everywhere with the same interminable fields of sage, and occasionally the road is very heavy. We now frequently saw Indians, who were strung along the river at every little rapid where fish are to be caught, and the cry, *haggai, haggai*, (fish,) was constantly heard whenever we passed near their huts, or met them in the road. Very many of them were oddly and partially dressed in overcoat, shirt, waistcoat, or pantaloons, or whatever article of clothing they had been able to procure in trade from the emigrants; for we had now entirely quitted the country where hawks' bells, beads, and vermilion were the current coin, and found that here only useful articles, and chiefly clothing, were in great request. These, however, are eagerly sought after; and for a few trifling pieces of clothing, travelers may procure food sufficient to carry them to the Columbia.

On the left, the mountains are visible at the distance of 20 or 30 miles, appearing smooth and rather low; but at intervals higher peaks look out from beyond, and indicate that the main ridge, which we are leaving with the course of the river, and which forms the northern boundary of the Great Basin, still maintains its elevation. About two o'clock we arrived at the ford where the road crosses to the right bank of Snake river. An Indian was hired to conduct us through the ford, which proved impracticable for us, the water sweeping away the howitzer and nearly drowning the mules, which we were obliged to extricate by cutting them out of the harness. The river here is expanded into a little bay, in which there are two islands, across which is the road of the ford; and the emigrants had passed by, placing two of their heavy wagons abreast of each other, so as to oppose a considerable mass against the body of water. The Indians informed us that one of the men, in attempting to turn some cattle which had taken a wrong direction, was carried off by the current and drowned. Since their passage, the water had risen considerably; but, fortunately, we had a resource in a boat, which was filled with air and launched; and at seven o'clock we were safely encamped on the opposite bank, the animals swimming across, and the carriage, howitzer, and baggage of the camp, being carried over in the boat. At the place where we crossed, above the islands, the river had narrowed to a breadth of 1,049 feet by measurement, the greater portion of which was from six to eight feet deep. We were obliged to make our camp where we landed, among the Indian lodges, which are semi-circular huts made of willow, thatched over with straw, and open to the sunny south. By observation, the latitude of our encampment on the right bank of the river was $42^{\circ} 55' 58''$, chronometric longitude $115^{\circ} 04' 46''$, and the traveled distance from Fort Hall 208 miles.

We encamped on the evening of the 8th on the right bank of the river, and early the next morning arrived at Fort Boise. This is a simple dwelling-house on the right bank of Snake river, about a mile below the mouth of Rivière Boisée; and on our arrival we were received with an agreeable hospitality by Mr. Payette, an officer of the Hudson's Bay Company, in charge of the fort, all of whose garrison consisted in a Canadian *engagé*.

Here the road recrosses the river, which is broad and deep; but, with our good boat, aided by two canoes, which were found at the place, the camp was very soon transferred to the left bank. Mr. Payette had made but slight attempts at cultivation, his efforts being limited to raising a few vegetables, in which he succeeded tolerably well; the post being principally supported by salmon. He was very hospitable and kind to us, and we made a sensible impression upon all his comestibles; but our principal inroad was into the dairy, which was abundantly supplied, stock appearing to thrive extremely well; and we had an unusual luxury in a present of fresh butter, which was, however, by no means equal to that of Fort Hall—probably from some accidental cause. During the day we remained here, there were considerable numbers of miserable, half-naked Indians around the Fort, who had arrived from the neighboring mountains. During the summer, the only subsistence of these people is

derived from the salmon, of which they are not provident enough to lay up a sufficient store for the winter, during which many of them die from absolute starvation.

Many little accounts and scattered histories, together with an acquaintance which I gradually acquired of their modes of life, had left the aboriginal inhabitants of this vast region pictured in my mind as a race of people whose great and constant occupation was the means of procuring a subsistence; and though want of space and other reasons will prevent me from detailing the many incidents which make this familiar to me, this great feature among the characteristics of the country will gradually be forced upon your mind.

Pointing to a group of Indians who had just arrived from the mountains on the left side of the valley, and who were regarding our usual appliances of civilization with an air of bewildered curiosity, Mr. Payette informed me that, every year since his arrival at this post, he had unsuccessfully endeavored to induce these people to lay up a store of salmon for their winter provision. While the summer weather and the salmon lasted, they lived contentedly and happily, scattered along the different streams where fish are to be found; and as soon as the winter snows began to fall, little smokes would be seen rising among the mountains, where they would be found in miserable groups, starving out the winter; and sometimes, according to the general belief, reduced to the horror of cannibalism—the strong, of course, preying upon the weak. Certain it is they are driven to any extremity for food, and eat every insect, and every creeping thing, however loathsome and repulsive. Snails, lizards, ants—all are devoured with the readiness and greediness of mere animals.

A part of a bullock purchased at the Fort, together with the boat to assist him in crossing, was left here for Mr. Fitzpatrick, and at eleven o'clock we resumed our journey; and directly leaving the river, and crossing the artemisia plain, in several ascents we reached the foot of a ridge, where the road entered a dry sandy hollow, up which it continued to the head; and, crossing a dividing ridge, entered a similar one. We met here two poor emigrants, (Irishmen,) who had lost their horses, two days since—probably stolen by the Indians; and were returning to the Fort, in hopes of hearing something of them there. They had recently had nothing to eat; and I halted to unpack an animal, and gave them meat for their dinner.

On the 25th we arrived at the Nez Perce fort, one of the trading establishments of the Hudson Bay Company, a few hundred yards above the junction of the Walahwalah with the Columbia river. Here we had the first view of this river, and found it about 1,200 feet wide, and presenting the appearance of a fine, navigable stream. We made our camp in a little grove of willows on the Walahwalah, which are the only trees to be seen in the neighborhood; but were obliged to send the animals back to the encampment we had left, as there was scarcely a blade of grass to be found. The post is on the bank of the Columbia, on a plain of bare sands, from which the air was literally filled with clouds of dust and sand, during one of the few days we remained here; this place being one

of the several points on the river which are distinguished for prevailing high winds that come from the sea. The appearance of the post and country was without interest, except that we here saw, for the first time, the great river on which the course of events for the last half century has been directing attention and conferring historical fame. The river is, in deed, a noble object, and has here attained its full magnitude. About nine miles above, and in sight from the heights about this post, is the junction of the two great forks which constitute the main stream—that on which we had been traveling from Fort Hall, and known by the names of Lewis' Fork, Shoshonee, and Snake river; and the North Fork, which has retained the name of Columbia, as being the main stream.

We did not go up the junction, being pressed for time; but the union of two large streams, coming one from the southeast, and the other from the northeast, and meeting in what may be treated as the geographical centre of Oregon valley, thence doubling the volume of water to the ocean, while opening two great lines of communication with the interior continent, constitutes a feature in the map of the country which cannot be overlooked; and it was probably in reference to this junction of waters, and these lines of communication, that this post was established. They are important lines, and, from the structure of the country, must forever remain so—one of them leading to the South Pass and to the Valley of the Mississippi, the other to the pass at the head of the Athabasca river, and to the countries drained by the waters of the Hudson Bay. The British fur companies now use both lines; the Americans, in their emigration to Oregon, have begun to follow the one which leads towards the United States. Bateaux from tide-water ascend to the junction, and thence high up the North Fork, or Columbia. Land conveyance only is used upon the line of Lewis' Fork. To the emigrants to Oregon, the Nez Perce is a point of great interest, as being, to those who choose it, the termination of their overland journey. The broad expanse of the river here invites them to embark on its bosom; and the lofty trees of the forest furnish the means of doing so.

From the South Pass to this place is about 1,000 miles; and as it is about the same distance from that pass to the Missouri river at the mouth of the Kansas, it may be assumed that 2,000-miles is the *necessary* land travel in crossing from the United States to the Pacific Ocean on this line. From the mouth of the Great Platte it would be about one hundred miles less.

McKinley, the commander of the post, received us with great civility; and both to myself, and the heads of the emigrants who were there at the time, extended the rights of hospitality in a comfortable dinner to which he invited us.

At the time of our arrival, a considerable body of emigrants, under the direction of Mr. Applegate, a man of considerable resolution and energy, had nearly completed the building of a number of Mackinaw boats, in which they proposed to continue their further voyage down the Columbia. I had seen, in descending the Walahwah river, a fine drove of several hundred cattle, which they had exchanged for California cattle, to be received at Vancouver, and which are considered *very inferior*

breed. The other portion of the emigration had preferred to complete their journey by land along the banks of the Columbia, taking their stock and wagons with them.

Having reinforced our animals with eight fresh horses, hired from the post, and increased our stock of provisions with dried salmon, potatoes, and a little beef, we resumed our journey down the left bank of the Columbia, being guided on our road by an intelligent Indian boy, whom I had engaged to accompany us as far as the Dalles.

From an elevated point over which the road led, we obtained another far view of Mount Hood, 150 miles distant. We obtained on the river bank an observation of the sun at noon, which gave for the latitude $45^{\circ} 58' 08''$. The country to-day was very unprepossessing, and our road bad; and as we toiled slowly along through deep loose sands, and over fragments of black volcanic rock, our laborious traveling was strongly contrasted with the rapid progress of Mr. Applegate's fleet of boats, which suddenly came gliding swiftly down the broad river, which here chanced to be tranquil and smooth. At evening we encamped on the river bank, where there was very little grass, and less timber. We frequently met Indians on the road, and they were collected at every favorable spot along the river.

After a day's journey of seventeen miles, on the of third of November we encamped among the hills on a little clear stream, where, as usual, the Indians immediately gathered round us. Among them was a very old man, almost blind from age, with long and very white hair. I happened of my own accord to give this old man a present of tobacco, and was struck with the impression which my unpropitiated notice made on the Indians, who appeared in a remarkable manner acquainted with the real value of goods, and to understand the equivalents of trade. At evening, one of them spoke a few words to his people, and, telling me that we need entertain no uneasiness in regard to our animals, as none of them would be disturbed, they went all quietly away. In the morning, when they again came to the camp, I expressed to them the gratification we felt at their reasonable conduct, making them a present of some large knives and a few smaller articles.

In comparison with the Indians of the Rocky Mountains and the great eastern plain, these are disagreeably dirty in their habits. Their huts were crowded with half-naked women and children, and the atmosphere within was any thing but pleasant to persons who had just been riding in the fresh morning air. We were somewhat amused with the scanty dress of a woman, who, in common with the others, rushed out of the huts on our arrival, and who, in default of other covering, used a child for a fig-leaf.

The road passed near an elevated point, from which we overlooked the valley of the Columbia for many miles, and saw in the distance several houses surrounded by fields, which a chief, who had accompanied us from the village, pointed out to us as the Methodist Missionary Station.

In a few miles we descended to the river, which we reached at one of its remarkably interesting features, known as the *Dalles of the Columbia*. The whole volume of the river at this place passed between the walls of a chasm, which has the appearance of having been rent through

the basaltic strata which form the valley-rock of the region. At the narrowest place, we found the breadth, by measurement, 58 yards, and the average height of the walls above the water 25 feet; forming a trough between the rocks—whence the name, probably applied by a Canadian voyageur. The mass of water, in the present low state of the river, passed swiftly between, deep and black, and curled into many small whirlpools and counter currents, but unbroken by foam, and so still that scarcely the sound of a ripple was heard. The rock, for a considerable distance from the river, was worn over a large portion of its surface into circular holes and well-like cavities, by the abrasion of the river, which, at the season of high waters, is spread out over the adjoining bottoms.

In the recent passage through this chasm, an unfortunate event had occurred to Mr. Applegate's party, in the loss of one of their boats, which had been carried under water in the midst of the *Dalles*, and two of Mr. Applegate's children and one man drowned. This misfortune was attributed only to want of skill in the steersman, as at this season there was no impediment to navigation; although the place is entirely impassable at high water, when boats pass safely over the great falls above, in the submerged state in which they then find themselves.

We passed rapidly three or four miles down the level valley, and encamped near the mission. The character of the forest growth here changes, and we found ourselves, with pleasure, again among the oaks and other forest-trees of the east, to which we had long been strangers; and the hospitable and kind reception with which we were welcomed among our country people at the mission, aided the momentary illusion of home.

Two good-looking wooden dwelling-houses, and a large school-house, with stables, barn, and garden, and large cleared fields between the houses and the river bank, on which were scattered the wooden huts of an Indian village, gave to the valley the cheerful and busy air of civilization, and had in our eyes an appearance of abundant and enviable comfort.

Our land journey found here its western termination. The delay involved in getting our camp to the right bank of the Columbia, and in opening a road through the continuous forest to Vancouver, rendered a journey along the river impracticable; and on this side the usual road across the mountain required strong and fresh animals, there being an interval of three days in which they could obtain no food. I therefore wrote immediately to Mr. Fitzpatrick, directing him to abandon the carts at the Walahwahlah missionary station, and as soon as the necessary pack-saddles could be made, which his party required, meet me at the *Dalles*, from which point I proposed to commence our homeward journey. The day after our arrival being Sunday, no business could be done at the mission; but on Monday, Mr. Perkins assisted me in procuring from the Indians a large canoe, in which I designed to complete our journey to Vancouver, where I expected to obtain the necessary supply of provisions and stores for our winter journey. Three Indians, from the family to whom the canoe belonged, were engaged to assist in working her during the voyage, and, with them, our water party consisted of Mr. Press

and myself, with Bernier and Jacob Dodson. In charge of the party which was to remain at the Dalles I left Carson, with instructions to occupy the people in making pack-saddles and refitting their equipage. The village from which we were to take the canoe was on the right bank of the river, about ten miles below, at the mouth of the Tinanens creek; and while Mr. Preuss proceeded down the river with the instruments, in a little canoe paddled by two Indians, Mr. Perkins accompanied me with the remainder of the party by land. The last of the emigrants had just left the Dalles at the time of our arrival, traveling some by water and others by land, making ark-like rafts, on which they had embarked their families and households, with their large wagons and other furniture, while their stock was driven along the shore.

For about five miles below the Dalles, the river is narrow, and probably very deep; but during this distance it is somewhat open, with grassy bottoms on the left. Entering, then, among the lower mountains of the Cascade range, it assumes a general character, and high and steep rocky hills shut it in on either side, rising abruptly in places to the height of fifteen hundred feet above the water, and gradually acquiring a more mountainous character as the river approaches the Cascades.

After an hour's travel, when the sun was nearly down, we searched along the shore for a pleasant place, and halted to prepare supper. We had been well supplied by our friends at the mission with delicious salted salmon, which had been taken at the fattest season; also, with potatoes, bread, coffee, and sugar. We were delighted at a change in our mode of traveling and living. The canoe sailed smoothly down the river; at night we encamped upon the shore, and a plentiful supply of provisions supplied the first of wants. We enjoyed the contrast which it presented to our late toilsome marchings, our night watchings, and our frequent privation of food. We were a motley group, but all happy; three unknown Indians; Jacob, a colored man; Mr. Preuss, a German; Bernier, creole French; and myself.

Being now upon the ground explored by the South Sea Expedition under Captain Wilkes, and having accomplished the object of uniting my survey with his, and thus presenting a connected exploration from the Mississippi to the Pacific, and the winter being at hand, I deemed it necessary to economize time by voyaging in the night, as is customary here, to avoid the high winds, which rise with the morning, and decline with the day.

Accordingly, after an hour's halt we again embarked, and resumed our pleasant voyage down the river. The wind rose to a gale after several hours; but the moon was very bright; and the wind was fair, and the canoe glanced rapidly down the stream, the waves breaking into foam alongside; and our night voyage, as the wind bore us rapidly along between the dark mountains, was wild and interesting. About midnight we put to the shore on a rocky beach, behind which was a dark-looking pine forest. We built up large fires among the rocks, which were in large masses round about; and, arranging our blankets on the most sheltered places we could find, passed a delightful night.

After an early breakfast, at daylight we resumed our journey, the

weather being clear and beautiful, and the river smooth and still. On either side the mountains are all pine-timbered, rocky, and high. We were now approaching one of the marked features of the lower Columbia where the river forms a great *cascade*, with a series of rapids, in breaking through the range of mountains to which the lofty peaks of Mount Hood and St. Helens belong, and which rise as great pillars of snow on either side of the passage. The main branch of the *Sacramento* river, and the *Tlamath*, issue in cascades from this range; and the Columbia, breaking through it in a succession of cascades, gives the idea of cascades to the whole range; and hence the name of CASCADE RANGE, which it bears, and distinguishes it from the Coast Range lower down. In making a short turn to the south, the river forms the cascades in breaking over a point of agglomerated masses of rock, leaving a handsome bay to the right, with several rocky, pine-covered islands, and the mountains sweep at a distance around a cove where several small streams enter the bay. In less than an hour we halted on the left bank, above the cascades, where there were several Indian huts, and where our guides signified it was customary to hire Indians to assist in making the *portage*. When traveling with a boat as light as a canoe, which may easily be carried on the shoulders of the Indians, this is much the better side of the river for the portage, as the ground here is very good and level, being a handsome bottom, which I remarked was covered (*as was now always the case along the river*) with a growth of green and fresh-looking grass. It was long before we could come to an understanding with the Indians; but at length, when they had first received the price of their assistance in goods, they went vigorously to work; and in a shorter time than had been occupied in making our arrangements, the canoe, instruments, and baggage were carried through (a distance of about half a mile) to the bank below the main cascade, where we again embarked, the water being white with foam from among the ugly rocks, and boiling into a thousand whirlpools. The boat passed with great rapidity, crossing and recrossing in the eddies of the current. After passing through about two miles of broken water, we ran some wild-looking rapids, which are called the Lower Rapids, being the last on the river, which below is tranquil and smooth—a broad, magnificent stream. On a low broad point on the right bank of the river, at the lower end of these rapids, were pitched many tents of the emigrants, who were waiting here for their friends from above, or for boats and provisions which were expected from Vancouver. In our passage down the rapids, I had noticed their camps along the shore, or transporting their goods across the portage. This portage makes a head of navigation, ascending the river. It is about two miles in length; and above, to the Dalles, is 45 miles of smooth and good navigation.

On arriving at Fort Vancouver I waited upon Dr. McLaughlin, the executive officer of the Hudson Bay Company, in the territory west of the Rocky Mountains, who received me with the courtesy and hospitality for which he has been eminently distinguished, and which makes a forcible and delightful impression on a traveler from the long wilderness from which we had issued. I was immediately supplied by him with the nec-

many stores and provisions to refit and support my party in our contemplated winter journey to the States; and also with a Mackinaw boat and canoes, manned with Canadian and Iroquois voyageurs and Indians, for their transportation to the Dalles of the Columbia. In addition to this efficient kindness, I received from him a warm and gratifying sympathy in the suffering which his great experience led him to anticipate for us in our homeward journey, and a letter of recommendation and credit for any officers of the Hudson Bay Company into whose posts we might be driven by unexpected misfortune.

Of course, the future supplies for my party were paid for, bills on the Government of the United States being readily taken; but every hospitable attention was extended to me, and I accepted an invitation to take a room in the fort, *"and to make myself at home while I stayed."*

I found many American emigrants at the fort; others had already crossed the river into their land of promise—the Walahmette valley. Others were daily arriving; and all of them have been furnished with shelter, so far as it could be afforded by the buildings connected with the establishment. Necessary clothing and provisions (the latter to be returned in kind from the produce of their labor) were also furnished. This friendly assistance was of very great value to the emigrants, whose families were otherwise exposed to much suffering in the winter rains, which had now commenced; at the same time they were in want of all the common necessities of life. Those who had taken a water conveyance at the Nez Perce fort continued to arrive safely, with no other accident than has been already mentioned. The party which had crossed over the Cascade Mountains were reported to have lost a number of their animals; and those who had driven their stock down the Columbia had brought them safely in, and found for them a ready and very profitable market, and were already proposing to return to the States in the spring for another supply.

In the space of two days our preparations had been completed, and we were ready to set out on our return. It would have been very gratifying to have gone down to the Pacific, and, solely in the interest and love of geography, to have seen the ocean on the western as well as on the eastern side of the continent, so as to give a satisfactory completeness to the geographical picture which had been formed in our minds; but the rainy season had now regularly set in, and the air was filled with fogs and rain, which left no beauty in any scenery, and obstructed observations. The object of my instructions had been entirely fulfilled in having connected our reconnaissance with the surveys of Captain Wilkes; and although it would have been agreeable and satisfactory to terminate here also our other astronomical observations, I was not, for such a reason, justified to make a delay in waiting for favorable weather.

Near sunset of the 10th of November the boats left the fort, and embarked after making only a few miles. Our flotilla consisted of a Mackinaw barge and three canoes—one of them that in which we had descended the river—and a party in all of twenty men. One of the emigrants, Mr. Burnet, of Missouri, who had left his family and property at the Dalles, availed himself of the opportunity afforded by the return

of our boats to bring them down to Vancouver. This gentleman, as well as the Messrs. Applegate, and others of the emigrants whom I saw, possessed intelligence and character, with the moral and intellectual stamina, as well as the enterprise, which give solidity and respectability to the foundation of colonies.

THE PACIFIC REGION EXPLORED.

On the 18th we arrived at the Dalles. Carson had removed the camp up the river a little nearer to the hills, where the animals had better grass. We found every thing in good order, and arrived just in time to partake of an excellent roast of California beef. My friend, Mr. Gilpin, had arrived in advance of the party. His object in visiting this country had been to obtain correct information of the W Lahmette settlements; and he had reached this point in his journey, highly pleased with the country over which he had traveled, and with invigorated health. On the following day he continued his journey, in our returning boats, to Vancouver.

The camp was now occupied in making the necessary preparations for our homeward journey, which, though homeward, contemplated a new route, and a great circuit to the south and southeast, and the exploration of the Great Basin between the Rocky Mountains and the *Sierra Nevada*. Three principal objects were indicated, by report or by maps, as being on this route; the character or existence of which I wished to ascertain, and which I assumed as landmarks, or leading points, on the projected line of return. The first of these points was the *Tlamath* lake on the table-land between the head of Fall river, which comes to the Columbia, and the Sacramento, which goes to the Bay of San Francisco; and from which lake a river of the same name makes its way westwardly direct to the ocean. This lake and river are often called *Klamath* but I have chosen to write its name according to the Indian pronunciation. The position of this lake, on the inland communication between Oregon and California; its proximity to the demarcation boundary of latitude 42°; its imputed double character of lake, or meadow, according to the season of the year; and the hostile and warlike character attributed to the Indians about it—all made it a desirable object to visit and examine. From this lake our course was intended to be about southeast to a reported lake called Mary's at some days' journey in the Great Basin; and thence, still on southeast, to the reputed *Buenaventura* river, which has had a place in so many maps, and countenanced the belief of the existence of a great river flowing from the Rocky Mountains to the Bay of San Francisco. From the *Buenaventura* the next point was intended to be in that section of the Rocky Mountains which includes the heads of Arkansas river, and of the opposite waters of the Californian gulf; and thence down the Arkansas to Bent's fort, at home. This was our projected line of return—a great part of it also

lately new to geographical, botanical, and geological science—and the subject of reports in relation to lakes, rivers, deserts, and savages hardly above the condition of mere wild animals, which inflamed desire to know what this *terra incognita* really contained.

It was a serious enterprise, at the commencement of winter, to undertake the traverse of such a region, and with a party consisting only of twenty-five persons, and they of many nations—American, French, German, Canadian, Indian, and colored—and most of them young, several of them being under twenty-one years of age. All knew that a strange country was to be explored, and dangers and hardships to be encountered; but no one blenched at the prospect. On the contrary, courage and confidence animated the whole party. Cheerfulness, readiness, subordination, prompt obedience, characterized all; nor did any extremity of peril or privation, to which we were afterwards exposed, ever belie, or derogate from, the fine spirit of this brave and generous commencement.

For the support of the party, I had provided at Vancouver a supply of provisions for not less than three months, consisting principally of flour, peas, and tallow—the latter being used in cooking; and, in addition to this, I had purchased at the mission some California cattle, which were to be driven on the hoof. We had 104 mules and horses—part of the latter procured from the Indians about the mission; and for the sustenance of which, our reliance was upon the grass which we should find, and the soft porous wood which was to be substituted when there was none.

Our preparations had been fully completed, and to-day we commenced our journey. The little wagon which had hitherto carried the instruments, I judged it necessary to abandon; and it was accordingly presented to the mission. In all our long traveling, it had never been overturned or injured by any accident of the road; and the only things broken were the glass lamps, and one of the front panels, which had been kicked out by an unruly Indian horse. The howitzer was the only wheeled carriage now remaining. We started about noon, when the weather had become disagreeably cold, with flurries of snow. Our friend Mr. Perkins, whose kindness had been active and efficient during our stay, accompanied us several miles on our road, when he bade us farewell and consigned us to the care of our guides. Ascending to the plains beyond the southern fork of the *Tinanens* creek, we found the snow lying on the ground in frequent patches, although the pasture appeared good, and the new short grass was fresh and green. We traveled over high, hilly land, and encamped on a little branch of *Tinanens* creek, where there were good grass and timber.

About 11 o'clock, on the 10th of December, we reached a spring of cold water on the edge of a savannah, or grassy meadow, which our guides informed us was an arm of the *Tlamath* Lake; and a few miles farther we entered upon an extensive meadow, or lake of grass surrounded by timbered mountains. This was the *Tlamath* Lake. It was a picturesque and beautiful spot, and rendered more attractive to us by the abundant and excellent grass, which our animals, after traveling through

pine forests, so much needed ; but the broad sheet of water which constitutes a lake was not to be seen. Overlooking it, immediately west, were several snowy knobs, belonging to what we have considered a branch of the Cascade Range. A low point, covered with pines, made out into the lake, which afforded us a good place for an encampment and for the security of our horses, which were guarded in view on the open meadow. The character of courage and hostility attributed to the Indians in this quarter induced more than usual precaution ; and, seeing smokes rising from the middle of the lake (or savannah) and along the opposite shores, I directed the howitzer to be fired. It was the first time that our guides had seen it discharged ; and the bursting of the shell at a distance, which was something like the second fire of the gun, amazed and bewildered them with delight. It inspired them with triumphant feelings ; but on the camps at a distance the effect was different, for the smokes in the lake and on the shores immediately disappeared.

The point on which we were encamped forms, with the opposite eastern shore, a narrow neck, connecting the body of the lake with a deep cove or bay which receives the principal affluent stream, and over the greater part of which the water (or rather ice) was at this time dispersed in shallow pools. Among the grass, and scattered over the prairie lake, appeared to be similar marshes. It is simply a shallow basin, which, for a short period at the time of melting snows, is covered with water from the neighboring mountains ; but this probably soon runs off, and leaves for the remainder of the year a green savannah, through the midst of which the river Tlamath, which flows to the ocean, winds its way to the outlet on the southwestern side.

No Indians made their appearance, and I determined to pay them a visit. Accordingly the people were gathered together, and we rode out towards the village in the middle of the lake which one of our guides had previously visited. It could not be directly approached, as a large part of the lake appeared a marsh ; and there were sheets of ice among the grass on which our horses could not keep their footing. We therefore followed the guide for a considerable distance along the forest ; and then turned off towards the village, which we soon began to see as a few large huts, on the tops of which were collected the Indians. When we had arrived within half a mile of the village, two persons were seen advancing to meet us ; and, to please the fancy of our guides, we ranged ourselves into a long line, riding abreast, while they galloped ahead to meet the strangers.

We were surprised, on riding up, to find one of them a woman, having never before known a squaw to take any part in the business of war. They were the village chief and his wife, who, in excitement and alarm at the unusual event and appearance, had come out to meet their fate together. The chief was a very prepossessing Indian with handsome features, and a singularly soft and agreeable voice—so remarkable as to attract general notice.

The huts were grouped together on the bank of the river, which, from being spread out in a shallow marsh at the upper end of the lake, was collected here into a single stream. They were large round huts, per-

haps 20 feet in diameter, with rounded tops, on which was the door by which they descended into the interior. Within; they were supported by posts and beams.

Almost like plants, these people seem to have adapted themselves to the soil, and to be growing on what the immediate locality afforded. Their only subsistence at the time appeared to be a small fish, great quantities of which, that had been smoked and dried, were suspended on strings, about the lodge. Heaps of straw were lying around; and their residence in the midst of grass and rushes, had taught them a peculiar skill in converting this material to useful purposes. Their shoes were made of straw or grass, which seemed well adapted for a snowy country; and the women wore on their heads a closely-woven basket, which made a very good cap. Among other things, were party-colored mats about four feet square, which we purchased to lay on the snow under our blankets, and to use for table-cloths.

Numbers of singular-looking dogs, resembling wolves, were sitting on the tops of the huts; and of these we purchased a young one, which, after its birthplace, was named Tlamath. The language spoken by these Indians is different from that of the Shoshonee and Columbia River tribes; and otherwise than by signs they cannot understand each other. They made us comprehend that they were at war with the people who lived to the southward and to the eastward; but I could obtain from them no certain information. The river on which they live enters the Cascade mountains on the western side of the lake and breaks through them by a passage impracticable for travelers; but over the mountains, to the northward, are passes which present no other obstacle than in the almost impenetrable forests. Unlike any Indians we had previously seen, these wore shells in their noses. We returned to our camp, after remaining here an hour or two, accompanied by a number of Indians.

In order to recruit a little the strength of our animals, and obtain some acquaintance with the locality, we remained here for the remainder of the day. By observation, the latitude of the camp was $42^{\circ} 56' 51''$, and the diameter of the lake, or meadow, as has been intimated, about 20 miles. It is a picturesque and beautiful spot, and, under the hand of cultivation, might become a little paradise. Game is found in the forest, timbered and snowy mountains skirt it, and fertility characterizes it. Situated near the heads of three rivers, and on the line of inland communication with California, and near to Indians noted for treachery, it will naturally, in the progress of the settlement of Oregon, become a point for military occupation and settlement.

From Tlamath Lake, the further continuation of our voyage assumed a character of discovery and exploration, which, from the Indians here, we could obtain no information to direct, and where the imaginary maps of the country, instead of assisting, exposed us to suffering and defeat. In our journey across the desert, Mary's Lake, and the famous Buena-ventura River, were two points on which I relied to recruit the animals and repose the party. Forming, agreeably to the best maps in my possession, a connected water-line from the Rocky Mountains to the Pacific Ocean, I felt no other anxiety than to pass safely across the in-

tervening desert to the banks of the Buenaventura, where, in the softer climate of a more southern latitude, our horses might find grass to sustain them, and ourselves be sheltered from the rigors of winter, and from the inhospitable desert. The guides who had conducted us thus far on our journey were about to return; and I endeavored in vain to obtain others to lead us, even for a few days, in the direction (east) which we wished to go. The chief to whom I applied alleged the want of horses, and the snow on the mountains across which our course would carry us, and the sickness of his family, as reasons for refusing to go with us.

Next morning the camp was thronged with Tlamath Indians from the southeastern shore of the lake; but, knowing the treacherous disposition which is a remarkable characteristic of the Indians south of the Columbia, the camp was kept constantly on its guard. I was not unmindful of the disasters which Smith and other travelers had met with in this country, and therefore was equally vigilant in guarding against treachery and violence.

According to the best information I had been able to obtain from the Indians, in a few days' traveling we should reach another large water, probably a lake, which they indicated exactly in the course we were about to pursue. We struck our tents at 10 o'clock, and crossed the lake in a nearly east direction, where it has the least extension—the breadth of the arm being here only about a mile and a half. There were ponds of ice, with but little grass, for the greater part of the way, and it was difficult to get the pack-animals across, which fell frequently, and could not get up with their loads, unassisted. The morning was very unpleasant, snow falling at intervals in large flakes, and the sky dark. In about two hours we succeeded in getting the animals over; and, after traveling another hour along the eastern shore of the lake, we turned up into a cove where there was a sheltered place among the timber, with good grass, and encamped. The Indians, who had accompanied us so far, returned to their village on the southeastern shore. Among the pines here, I noticed some five or six feet in diameter.

We traveled on the 16th through snow about three feet deep, which, being crusted, very much cut the feet of our animals. The mountain still gradually rose; we crossed several spring heads covered with quaking asp; otherwise it was all pine forest. The air was dark with falling snow, which every where weighed down the trees. The depths of the forest were profoundly still; and below, we scarcely felt a breath of the wind which whirled the snow through their branches. I found that it required some exertion of constancy to adhere steadily to one course through the woods, when we were uncertain how far the forest extended, or what lay beyond; and, on account of our animals, it would be bad to spend another night on the mountain. Towards noon the forest looked clear ahead, appearing suddenly to terminate; and beyond a certain point we could see no trees. Riding rapidly ahead to this spot, we found ourselves on the verge of a vertical and rocky wall of the mountain. At our feet—more than a thousand feet below—we looked into a green prairie country, in which a beautiful lake, some twenty miles in length, was spread along the foot of the mountains, its shores bordered with

green grass. Just then the sun broke out among the clouds, and illuminated the country below, while around us the storm raged fiercely. Not a particle of ice was to be seen on the lake, or snow on its borders, and all was like summer or spring. The glow of the sun in the valley below brightened up our hearts with sudden pleasure; and we made the woods ring with joyful shouts to those behind; and gradually, as each man came up, he stopped to enjoy the unexpected scene. Shivering on snow three feet deep, and stiffening in a cold north wind, we exclaimed at once that the names of Summer Lake and Winter Ridge should be applied to these two proximate places of such sudden and violent contrast.

We were now immediately on the verge of the forest land, in which we had been traveling so many days; and, looking forward to the east, scarce a tree was to be seen. Viewed from our elevation, the face of the country exhibited only rocks and grass, and presented a region in which the artemisia became the principal wood, furnishing to its scattered inhabitants fuel for their fires, building material for their huts, and shelter for the small game which ministers to their hunger and nakedness. Broadly marked by the boundary at the mountain wall, and immediately below us, were the first waters of the Great Interior Basin, which has the Wahsatch and Bear River mountains for its eastern, and the Sierra Nevada for its western rim; and the edge of which we had entered upwards of three months before, at the Great Salt Lake.

When we had sufficiently admired the scene below, we began to think about descending, which was here impossible, and we turned towards the north, traveling always along the rocky wall. We continued on for four or five miles, making ineffectual attempts at several places; and at length succeeded in getting down at one which was extremely difficult of descent. Night had closed in before the foremost reached the bottom, and it was dark before we all found ourselves together in the valley. There were three or four half-dead dry cedar-trees on the shore, and those who first arrived kindled bright fires to light on the others. One of the mules rolled over and over two or three hundred feet into a ravine, but recovered himself without any other injury than to his pack; and the howitzer was left midway the mountain until morning. By observation, the latitude of this encampment is $42^{\circ} 57' 22''$. It delayed us until near noon the next day to recover ourselves and put every thing in order; and we made only a short camp along the western shore of the lake, which, in the summer temperature we enjoyed to-day, justified the name we had given it. Our course would have taken us to the other shore, and over the highlands beyond; but I distrusted the appearance of the country, and decided to follow a plainly-beaten Indian trail leading along this side of the lake. We were now in a country where the scarcity of water and of grass makes traveling dangerous, and great caution was necessary.

We were roused on Christmas morning by a discharge from the small-arms and howitzer, with which our people saluted the day, and the name of which we bestowed on a lake. It was the first time, perhaps, in this remote and desolate region, in which it had been so commemorated. Always, on days of religious or national commemoration, our voya-

geurs expect some unusual allowance; and having nothing else, I gave them each a little brandy, (which was carefully guarded, as one of the most useful articles a traveler can carry,) with some coffee and sugar which here, where every eatable was a luxury, was sufficient to make them a feast.

Riding quietly along over the snow, on the 28th, we came suddenly upon smokes rising among these bushes; and, galloping up, we found two huts, open at the top, and loosely built of sage, which appeared to have been deserted at the instant; and, looking hastily around, we saw several Indians on the crest of the ridge near by, and several others scrambling up the side. We had come upon them so suddenly, that they had been well-nigh surprised in their lodges. A sage fire was burning in the middle; a few baskets made of straw were lying about, with one or two rabbit-skins; and there was a little grass scattered about, on which they had been lying. "Tabibo—bo!" they shouted from the hills—a word which, in the Snake language, signifies *white*—and remained looking at us from behind the rocks. Carson and Godey rode towards the hill, but the men ran off like deer. They had been so much pressed, that a woman with two children had dropped behind a sage-bush near the lodge, and when Carson accidentally stumbled upon her, she immediately began screaming in the extremity of fear, and shut her eyes fast to avoid seeing him. She was brought back to the lodge, and we endeavored in vain to open a communication with the men. By dint of presents, and friendly demonstrations, she was brought to calmness; and we found that they belonged to the Snake nation, speaking the language of that people. Eight or ten appeared to live together, under the same little shelter; and they seemed to have no other subsistence than the roots or seeds they might have stored up, and the hares which live in the sage, and which they are enabled to track through the snow, and are very skilful in killing. Their skins afford them a little scanty covering. Herding together among bushes, and crouching almost naked over a little sage fire, using their instinct only to procure food, these may be considered, among human beings, the nearest approach to the animal creation. We have reason to believe that these had never before seen the face of a white man.

Our new year's eve was rather a gloomy one. The result of our journey began to be very uncertain; the country was singularly unfavorable to travel; the grasses being frequently of a very unwholesome character, and the hoofs of our animals were so worn and cut by the rocks, that many of them were lame, and could scarcely get along.

Our situation had now become a serious one. We had reached and run over the position where, according to the best maps in my possession, we should have found Mary's lake or river. We were evidently on the verge of the desert which had been reported to us; and the appearance of the country was so forbidding that I was afraid to enter it, and determined to bear away to the southward, keeping close along the mountains, in the full expectation of reaching the Buenaventura River. I put every man in the camp on foot—myself, of course, among the rest—and in this manner lightened by distribution the loads of the animals.

After a hard day's travel, on the 6th of January, over ground of yielding mud and sand, we reached some hot springs, where we found an abundance of grass, which, though only tolerably good, made this place, with reference to the past, a refreshing and agreeable spot.

This is the most extraordinary locality of hot springs we had met during the journey. The basin of the largest one has a circumference of several hundred feet; but there is at one extremity a circular space of about fifteen feet in diameter, entirely occupied by the boiling water. It boils up at irregular intervals, and with much noise. The water is clear, and the spring deep: a pole about sixteen feet long was easily immersed in the centre; but we had no means of forming a good idea of the depth. It was surrounded on the margin with a border of green grass, and near the shore the temperature of the water was 206° . We had no means of ascertaining that of the centre, where the heat was greatest; but, by dispersing the water with a pole, the temperature at the margin was increased to 208, and in the centre it was doubtless higher. By driving the pole towards the bottom, the water was made to boil up with increased force and noise. There are several other interesting places, where water and smoke or gas escape; but they would require a long description. The water is impregnated with common salt, but not so much as to render it unfit for general cooking; and a mixture of snow made it pleasant to drink.

Our situation now required caution. Including those which gave out from the injured condition of their feet, and those stolen by the Indians, we had lost, since leaving the Dalles of the Columbia, fifteen animals; and of these, nine had been left in the last few days. I therefore determined, until we should reach a country of water and vegetation, to feel our way ahead by having the line of route explored some fifteen or twenty miles in advance, and only to leave a present encampment when the succeeding one was known.

We continued our reconnoissance ahead, pursuing a south direction in the basin along the ridge; the camp following slowly after. On a large trail there is never any doubt of finding suitable places for encampments. We reached the end of the basin, where we found, in a hollow of the mountain which enclosed it, an abundance of good bunch-grass. Leaving a signal for the party to encamp, we continued our way up the hollow, intending to see what lay beyond the mountain. The hollow was several miles long, forming a good pass; the snow deepening to about a foot as we neared the summit. Beyond, a defile between the mountains descended rapidly about two thousand feet; and, filling up all the lower space, was a sheet of green water, some twenty miles broad. It broke upon our eyes like the ocean. The neighboring peaks rose high above us, and we ascended one of them to obtain a better view. The waves were curling in the breeze, and their dark-green color showed it to be a body of deep water. For a long time we sat enjoying the view, for we had become fatigued with mountains, and the free expanse of moving waves was very grateful. It was set like a gem in the mountains, which, from our position, seemed to enclose it almost entirely. At the western end it communicated with the line of basins we had left a few days since;

and on the opposite side it swept a ridge of snowy mountains, the foot of the great Sierra. Its position at first inclined us to believe it Mary's Lake, but the rugged mountains were so entirely discordant with descriptions of its low rushy shores and open country, that we concluded it some unknown body of water, which it afterwards proved to be.

On our road down, the next day, we saw herds of mountain sheep, and encamped on a little stream at the mouth of the defile, about a mile from the margin of the water, to which we hurried down immediately. The water is so slightly salt, that, at first, we thought it fresh, and would be pleasant to drink when no other could be had. The shore was rocky, a handsome beach, which reminded us of the sea. On some large granite boulders that were scattered about the shore, I remarked a coating of calcareous substance, in some places a few inches, and in others a foot in thickness. Near our camp, the hills, which were of primitive rock, were also covered with this substance, which was in too great quantity on the mountains along the shore of the lake to have been deposited by water, and has the appearance of having been spread over the rocks in mass.

Where we had halted appeared to be a favorite camping-place for Indians.

We followed again a broad Indian trail along the shore of the lake to the southward. For a short space we had room enough in the bottom; but, after traveling a short distance, the water swept the foot of the precipitous mountains, the peaks of which are about 3,000 feet above the lake. The trail wound along the base of these precipices, against which the water dashed below, by a way nearly impracticable for the howitzer. During a greater part of the morning the lake was nearly hid by a snow-storm, and the waves broke on the narrow beach in a long line of foaming surf, five or six feet high.

We encamped on the shore, opposite a very remarkable rock in the lake, which had attracted our attention for many miles. It rose, according to our estimate, 600 feet above the water, and, from the point we viewed it, presented a pretty exact outline of the great pyramid of Cheops. Like other rocks along the shore, it seemed to be incrustated with calcareous cement. This striking feature suggested a name for the lake, and I called it Pyramid Lake; and though it may be deemed by some a fanciful resemblance, I can undertake to say that the future traveler will find much more striking resemblance between this rock and the pyramids of Egypt, than there is between them and the object from which they take their name.

The elevation of this lake above the sea is 4,890 feet, being nearly 700 feet higher than the Great Salt Lake, from which it lies nearly west, and distant about eight degrees of longitude. The position and elevation of this lake make it an object of geographical interest. It is the nearest lake to the western rim, as the Great Salt Lake is to the eastern rim, of the Great Basin which lies between the base of the Rocky Mountains and the Sierra Nevada—and the extent and character of which, its whole circumference and contents, it is so desirable to know.

Examining into the condition of the animals, I found their feet so

much cut up by the rocks, and so many of them lame, that it was evidently impossible that they could cross the country to the Rocky Mountains. Every piece of iron that could be used for the purpose had been converted into nails, and we could make no further use of the shoes we had remaining. I therefore determined to abandon my eastern course, and to cross the Sierra Nevada into the valley of the Sacramento, wherever a practicable pass could be found. My decision was heard with joy by the people, and diffused new life throughout the camp.

We had scarcely lighted our fires, on the night of the 31st, when the camp was crowded with nearly naked Indians; some of them were furnished with long nets in addition to bows, and appeared to have been out on the sage hills to hunt rabbits. These nets were perhaps thirty to forty feet long, kept upright in the ground by slight sticks at intervals, and were made from a kind of wild hemp, very much resembling in manufacture those common among the Indians of the Sacramento valley. They came among us without any fear, and scattered themselves about the fires, mainly occupied in gratifying their astonishment. I was struck by the singular appearance of a row of about a dozen, who were sitting on their haunches perched on a log near one of the fires, with their quick sharp eyes following every motion.

We gathered together a few of the most intelligent of the Indians, and held this evening an interesting council. I explained to them my intentions. I told them that we had come from a very far country, having been traveling now nearly a year, and that we were desirous simply to go across the mountain into the country of the other whites. There were two who appeared particularly intelligent—one, a somewhat old man. He told me that, before the snows fell, it was six sleeps to the place where the whites lived, but that now it was impossible to cross the mountain on account of the deep snow; and showing us, as the others had done, that it was over our heads, he urged us strongly to follow the course of the river, which he said would conduct us to a lake in which there were many large fish. There, he said, were many people; there was no snow on the ground; and we might remain there until the spring. From their descriptions, we were enabled to judge that we had encamped on the upper water of the Salmon Trout river. It is hardly necessary to say that our communication was only by signs, as we understood nothing of their language; but they spoke, notwithstanding, rapidly and vehemently, explaining what they considered the folly of our intentions, and urging us to go down to the lake. *Tah-ee*, a word signifying snow, we very soon learned to know, from its frequent repetition. I told him that the men and the horses were strong, that we would break a rode through the snow; and spreading before him our bales of scarlet cloth and trinkets, showed him what we would give for a guide. It was necessary to obtain one, if possible; for I had determined here to attempt the passage of the mountain. Pulling a bunch of grass from the ground, after short discussion among themselves, the old man made us comprehend that if we could break through the snow, at the end of three days we would come down upon grass, which he showed us would be about six inches high, and where the ground was entirely free. So far, he said, he had been in hunt-

ing for elk; but beyond that (and he closed his eyes) he had seen nothing, but there was one among them who had been to the whites, and, going out of the lodge, he returned with a young man of very intelligent appearance. Here, said he, is a young man who has seen the whites with his own eyes; and he swore, first by the sky, and then by the ground, that what he said was true. With a large present of goods, we prevailed upon this young man to be our guide, and he acquired among us the name of Melo—a word signifying friend, which they used very frequently. He was thinly clad, and nearly barefoot; his moccasins being about worn out. We gave him skins to make a new pair, and to enable him to perform his undertaking to us. The Indians remained in the camp during the night, and we kept the guide and two others to sleep in the lodge with us—Carson lying across the door, and having made them comprehend the use of our fire-arms.

The snow, which had intermitted in the evening, commenced falling again in the course of the night, and it snowed steadily all day. In the morning of February 1st, I acquainted the men with my decision, and explained to them that necessity required us to make a great effort to clear the mountains. I reminded them of the beautiful valley of the Sacramento, with which they were familiar from the descriptions of Carson, who had been there some fifteen years ago, and who, in our late privations, had delighted us in speaking of its rich pastures and abounding game, and drew a vivid contrast between its summer climate, less than a hundred miles distant, and the falling snow around us. I informed them, (and long experience had given them confidence in my observations and good instruments) that almost directly west, and only about seventy miles distant, was the great farming establishment of Captain Sutter—a gentleman who had formerly lived in Missouri, and, emigrating to this country, had become the possessor of a principality. I assured them that, from the heights of the mountain before us, we should doubtless see the valley of the Sacramento river, and with one effort place ourselves again in the midst of plenty. The people received this decision with the cheerful obedience which had always characterized them, and the day was immediately devoted to the preparations necessary to enable us to carry it into effect. Leggings, moccasins, clothing—all were put into the best state to resist the cold. Our guide was not neglected. Extremity of suffering might make him desert; we therefore did the best we could for him. Leggings, moccasins, some articles of clothing, and a large green blanket, in addition to the blue and scarlet cloth, were lavished upon him, and to his great and evident contentment. He arrayed himself in all his colors, and, clad in green, blue, and scarlet, he made a gay-looking Indian; and, with his various presents, was probably richer and better clothed than any of his tribe had ever been before.

I have already said that our provisions were very low; we had neither tallow nor grease of any kind remaining, and the want of salt became one of our greatest privations. The poor dog which had been found in the Bear River valley, and which had been a *compagnon de voyage* ever since, had now become fat, and the mess to which it belonged requested permission to kill it. Leave was granted. Spread out on the snow, the

meat looked very good; and it made a strengthening meal for the greater part of the camp. Indians brought in two or three rabbits during the day, which were purchased from them.

It had ceased snowing, and this morning the lower air was clear and frosty; and six or seven thousand feet above, the peaks of the Sierra now and then appeared among the rolling clouds, which were rapidly dispersing before the sun. Our Indian shook his head as he pointed to the icy pinnacles, shooting high up into the sky, and seeming almost immediately above us. Crossing the river on the ice, and leaving it immediately, we commenced the ascent of the mountain along the valley of a tributary stream. The people were unusually silent, for every man knew that our enterprise was hazardous, and the issue doubtful.

The snow deepened rapidly, and it soon became necessary to break a road. For this service a party of ten was formed, mounted on the strongest horses, each man in succession opened the road on foot, or on horseback, until himself and his horse became fatigued, when he stepped aside, and the remaining number passing ahead, he took his station in the rear. Leaving this stream, and pursuing a very direct course, we passed over an intervening ridge to the river we had left. On the way we passed two low huts entirely covered with snow, which might very easily have escaped observation. A family was living in each; and the only trail I saw in the neighborhood was from the door-hole to a nut-pine tree near, which supplied them with food and fuel. We found two similar huts on the creek where we next arrived; and, traveling a little higher up, encamped on its banks in about four feet depth of snow. Carson found near, an open hill-side, where the wind and the sun had melted the snow, leaving exposed sufficient bunch-grass for the animals to-night.

The nut-pines were now giving way to heavy timber, and there were some immense pines on the bottom, around the roots of which the sun had melted away the snow; and here we made our camp and built huge fires. To-day we had traveled sixteen miles, and our elevation above the sea was 6,760 feet.

Turning our faces directly towards the main chain, we ascended an open hollow along a small tributary to the river, which, according to the Indians, issues from a mountain to the south. The snow was so deep in the hollow, that we were obliged to travel along the steep hill-sides, and over spurs, where the wind and sun had in places lessened the snow, and where the grass, which appeared to be in good quality along the sides of the mountains, was exposed. We opened our road in the same way as yesterday, but made only seven miles, and encamped by some springs at the foot of a high and steep hill, by which the hollow ascended to another basin in the mountain. The little stream below was entirely buried in snow. The springs were shaded by the boughs of a lofty cedar, which here made its first appearance; the usual height was 120 to 180 feet, and one that was measured near by was six feet in diameter.

There being no grass exposed here, the horses were sent back to that which we had seen a few miles below. We occupied the remainder of the day in beating down a road to the foot of the hill, a mile or two distant; the snow being beaten down when moist, in the warm part of the

day, and then hard frozen at night, made a foundation that would bear the weight of the animals the next morning. During the day several Indians joined us on snow-shoes. These were made of a circular hoop, about a foot in diameter, the interior space being filled with an open network of bark.

I went ahead early on the 4th with two or three men, each with a led horse to break the road. We were obliged to abandon the hollow entirely, and work along the mountain side, which was very steep, and the snow covered with an icy crust. We cut a footing as we advanced, and trampled a road through for the animals; but occasionally one plunged outside of the trail, and slid along the field to the bottom, a hundred yards below. Late in the day we reached another bench in the hollow, where, in summer, the stream passed over a small precipice. Here was a short distance of dividing ground between the two ridges, and beyond an open basin, some ten miles across, whose bottom presented a field of snow. At the further or western side rose the middle crest of the mountain, a dark-looking ridge of volcanic rock.

The summit line presented a range of naked peaks, apparently destitute of snow and vegetation; but below, the face of the whole country was covered with timber of extraordinary size.

Towards a pass which the guide indicated here, we attempted in the afternoon to force a road; but after a laborious plunging through two or three hundred yards, our best horses gave out, entirely refusing to make any further effort, and, for the time, we were brought to a stand. The guide informed us that we were entering the deep snow, and here began the difficulties of the mountain; and to him, and almost to all, our enterprise seemed hopeless. I returned a short distance back, to the break in the hollow, where I met Mr. Fitzpatrick.

The camp had been occupied all the day in endeavoring to ascend the hill, but only the best horses had succeeded; the animals, generally, not having sufficient strength to bring themselves up without the packs; and all the line of road between this and the springs was strewn with camp-stores and equipage, and horses floundering in snow. I therefore immediately encamped on the ground with my own mess, which was in advance, and directed Mr. Fitzpatrick to encamp at the springs, and send all the animals, in charge of Tabean, with a strong guard, back to the place where they had been pastured the night before. Here was a small spot of level ground, protected on one side by the mountain, and on the other sheltered by a little ridge of rock. It was an open grove of pines, which assimilated in size to the grandeur of the mountain, being frequently six feet in diameter.

To-night we had no shelter, but we made a large fire around the trunk of one of the huge pines; and covering the snow with small boughs, on which we spread our blankets, soon made ourselves comfortable. The night was very bright and clear, though the thermometer was only at 10°. A strong wind, which sprang up at sundown, made it intensely cold; and this was one of the bitterest nights during the journey.

Two Indians joined our party here; and one of them, an old man, immediately began to harangue us, saying that ourselves and animals would

perish in the snow; and that if we would go back, he would show us another and a better way across the mountain. He spoke in a very loud voice, and there was a singular repetition of phrases and arrangement of words, which rendered his speech striking and not unmusical.

We had now begun to understand some words, and, with the aid of signs, easily comprehended the old man's simple ideas. "Rock upon rock—rock upon rock—snow upon snow," said he; "even if you get over the snow, you will not be able to get down from the mountains." He made us the sign of precipices, and showed us how the feet of the horses would slip, and throw them off from the narrow trails that led along their sides. Our Chinook, who comprehended even more readily than ourselves, and believed our situation hopeless, covered his head with his blanket, and began to weep and lament. "I wanted to see the whites," said he; "I came away from my own people to see the whites, and I wouldn't care to die among them, but here"—and he looked around into the cold night and gloomy forest, and, drawing his blanket over his head, began again to lament.

Seated around the tree, the fire illuminating the rocks and the tall bolts of the pines round about, and the old Indian haranguing, we presented a group of very serious faces.

The night had been too cold to sleep, and we were up very early. Our guide was standing by the fire with all his finery on; and seeing him shiver in the cold, I threw on his shoulders one of my blankets. We missed him a few minutes afterwards, and never saw him again. He had deserted. His bad faith and treachery were in perfect keeping with the estimate of Indian character, which a long intercourse with this people had gradually forced upon my mind.

While a portion of the camp were occupied in bring up the baggage to this point, the remainder were bustled in making sledges and snow-shoes. I had determined to explore the mountain ahead, and the sledges were to be used in transporting the baggage.

The mountains here consisted wholly of a white micaceous granite. The day was perfectly clear, and, while the sun was in the sky, warm and pleasant.

By observation, our latitude was $38^{\circ} 42' 26''$; and elevation by the boiling point, 7,400 feet.

Accompanied by Mr. Fitzpatrick, I set out on the 6th with a reconnoitering party on snow-shoes. We marched all in single file, trampling the snow as heavily as we could. Crossing the open basin, in a march of about ten miles we reached the top of one of the peaks, to the left of the pass indicated by our guide. Far below us, dimmed by the distance, was a large snowless valley, bounded on the western side, at the distance of about a hundred miles, by a low range of mountains, which Carson recognized with delight as the mountains bordering the coast. "There," said he, "is the little mountain—it is fifteen years since I saw it; but I am just as sure as if I had seen it yesterday." Between us, then, and this low coast range, was the valley of the Sacramento; and no one who had not accompanied us through the incidents of our life for the last few months could realize the delight with which at last we

looked down upon it. At the distance of apparently thirty miles beyond us were distinguished spots of prairie; and a dark line which could be traced with the glass, was imagined to be the course of the river; but we were evidently at a great height above the valley, and between us and the plains extended miles of snowy fields and broken ridges of pine-covered mountains.

It was late in the day when we turned towards the camp; and it grew rapidly cold as it drew towards night. One of the men became fatigued, and his feet began to freeze, and building a fire in the trunk of a dry old cedar, Mr. Fitzpatrick remained with him until his clothes could be dried, and he was in a condition to come on. After a day's march of twenty miles, we straggled into camp one after another, at nightfall; the greater number excessively fatigued, only two of the party having ever traveled on snow-shoes before.

All our energies are now directed to getting our animals across the now: and it was supposed that after all the baggage had been drawn with sleighs over the trail we had made, it would be sufficiently hard to bear our animals. At several places between this point and the ridge, we had discovered some grassy spots, where wind and sun had dispersed the snow from the sides of the hills, and these were to form resting-places to support the animals for a night in their passage across. On our way across we had set on fire several broken stumps, and dried trees, to melt holes in the snow for the camps. Its general depth was five feet; but we passed over places where it was twenty feet deep, as shown by the trees.

In the evening of the 11th, I received a message from Mr. Fitzpatrick, acquainting me with the utter failure of his attempt to get our mules and horses over the snow—the half hidden trail had proved entirely too slight to support them, and they had broken through, and were plunging about or lying half-buried in the snow. He was occupied in endeavoring to get them back to his camp; and in the mean time had sent to me for further instructions. I wrote to him to send the animals immediately back to their old pastures; and, after having made manes and shovels, turn in all the strength of his party to open and beat a road through the snow, strengthening it with branches and boughs of the pines.

We made manes, and worked hard on our end of the road all day. The wind was high, but the sun was bright, and the snow thawing. We worked down the face of the hill, to meet the people at the other end. Towards sundown it began to grow cold, and we shouldered our manes and trudged back to camp.

We continued to labor on the road; and in the course of the next day had the satisfaction to see the people working down the face of the opposite hill, about three miles distant. During the morning we had the pleasure of a visit from Mr. Fitzpatrick, with the information that all was going on well. A party of Indians had passed on snow-shoes, who said they were going to the western side of the mountain after fish. This was an indication that the salmon were coming up the streams; and we could hardly restrain our impatience as we thought of them, and worked with increased vigor.

The meat train did not arrive this evening, and I gave Godey leave to kill our little dog, (Flamath,) which he prepared in Indian fashion; scorching off the hair, and washing the skin with soap and snow, and then cutting it up into pieces, which were laid on the snow. Shortly afterwards, the sleigh arrived with a supply of horse-meat; and we had to-night an extraordinary dinner — pea-soup, mule and dog.

On the 19th, the people were occupied in making a road and bringing up the baggage; and, on the afternoon of the next day, *February 20* 1844, we encamped, with the animals and all the *materiel* of the camp, on the summit of the Pass in the dividing ridge, 1,000 miles by our traveled road from the Dalles of the Columbia.

The people, who had not yet been to this point, climbed the neighboring peak to enjoy a look at the valley.

The temperature of boiling water gave for the elevation of the encampment, 9,338 feet above the sea.

This was 2,000 feet higher than the South Pass in the Rocky Mountains, and several peaks in view rose several thousand feet still higher. Thus, at the extremity of the continent, and near the coast, the phenomenon was seen of a range of mountains still higher than the great Rocky Mountains themselves. This extraordinary fact accounts for the Great Basin, and shows that there must be a system of small lakes and rivers here scattered over a flat country, and which the extended and lofty range of the Sierra Nevada prevents from escaping to the Pacific ocean. Latitude $88^{\circ} 44'$; longitude $120^{\circ} 28'$.

Thus the Pass in the Sierra Nevada, which so well deserves its name of Snowy Mountain, is eleven degrees west and about four degrees south of the South Pass.

We now considered ourselves victorious over the mountain; having only the descent before us, and the valley under our eyes, we felt strong hope that we should force our way down. But this was a case in which the descent was *not* facile. Still deep fields of snow lay between them, and there was a large intervening space of rough-looking mountains, through which we had to wind our way. Carson roused me this morning with an early fire, and we were all up long before day, in order to pass the snow-fields before the sun should render the crust soft. We enjoyed this morning a scene at sunrise, which even here was unusually glorious and beautiful. Immediately above the eastern mountains was repeated a cloud-formed mass of purple ranges, bordered with bright yellow gold; the peaks shot up into a narrow line of crimson cloud, above which the air was filled with a greenish orange; and over all was the singular beauty of the blue sky.

We had hard and doubtful labor yet before us, as the snow appeared to be heavier where the timber began further down, with few open spots. Ascending a height, we traced out the best line we could discover for the next day's march, and had at least the consolation to see that the mountain descended rapidly. The day had been one of April — gusty, with a few occasional flakes of snow — which, in the afternoon, enveloped the upper mountain in clouds. We watched them anxiously, as now we dreaded a snow-storm. Shortly afterwards we heard the roll of thunder,

and, looking towards the valley, found it enveloped in a thunder-storm. For us, as connected with the idea of summer, it had a singular charm and we watched its progress with excited feelings until nearly sunset, when the sky cleared off brightly, and we saw a shining line of water directing its course towards another, a broader and a larger sheet. We knew that these could be no other than the Sacramento and the Bay of San Francisco; but, after our long wandering in rugged mountains, where so frequently we had met with disappointments, and where the crossing of every ridge displayed some unknown lake or river, we were yet almost afraid to believe that we were at last to escape into the genial country of which we had heard so many glowing descriptions, and dreaded to find some vast interior lake, whose bitter waters would bring us disappointment. On the southern shore of what appeared to be the bay could be traced the gleaming line where entered another large stream; and again the Buenaventura rose up in our minds.

We had the satisfaction to know that at least there were people below. Fires were lit up in the valley just at night, appearing to be in answer to ours; and these signs of life renewed, in some measure, the gayety of the camp. They appeared so near, that we judged them to be among the timber of some of the neighboring ridges; but, having them constantly in view day after day, and night after night, we afterwards found them to be fires that had been kindled by the Indians among the *tularas*, on the shores of the bay, 80 miles distant.

We continued to enjoy the same delightful weather; the sky of the same beautiful blue, and such a sunset and sunrise as on our Atlantic coast we could scarcely imagine. And here among the mountains, 9,000 feet above the sea, we have the deep-blue sky and sunny climate of Smyrna and Palermo, which a little map before me shows are in the same latitude.

The elevation above the sea, by the boiling point, is 8,565 feet.

The 23d was our most difficult day; we were forced off the ridges by the quantity of snow among the timber, and obliged to take to the mountain sides, where occasionally rocks and a southern exposure afforded us a chance to scramble along. But these were steep, and slippery with snow and ice, and the tough evergreens of the mountain impeded our way, tore our skins, and exhausted our patience. Some of us had the misfortune to wear mocassins with *parfleche* soles, so slippery that we could not keep our feet, and generally crawled across the snow-beds. Axes and mauls were necessary to-day, to make a road through the snow. Going ahead with Carson to reconnoitre the road, we reached in the afternoon the river which made the outlet of the lake. Carson sprang over, clear across a place where the stream was compressed among rocks, but the *parfleche* sole of my moccasin glanced from the icy rock, and precipitated me into the river. It was some few seconds before I could recover myself in the current, and Carson, thinking me hurt, jumped in after me, and we both had an icy bath. We tried to search awhile for my gun, which had been lost in the fall, but the cold drove us out; and making a large fire on the bank, after we had partially dried ourselves we went back to meet the camp. We afterwards found that the gun had been slung under the ice which lined the banks of the creek

Using our old plan of breaking roads with alternate horses, we reached the creek in the evening, and encamped on a dry open place in the ravine.

We continued down the south face of the mountain; our road leading over dry ground, we were able to avoid the snow almost entirely. In the course of the morning, we struck a foot-path, which we were generally able to keep; and the ground was soft to our animals' feet, being sandy or covered with mould. Green grass began to make its appearance, and occasionally we passed a hill scattering covered with it. The character of the forest continued the same; and, among the trees, the pine with sharp leaves and very large cones was abundant, some of them being noble trees. We measured one that had 10 feet diameter, though the height was not more than 130 feet. All along, the river was a roaring torrent, its fall very great; and, descending with a rapidity to which we had long been strangers, to our great pleasure oak-trees appeared on the ridge, and soon became very frequent; on these I remarked great quantities of mistletoe. Rushes began to make their appearance; and at a small creek where they were abundant, one of the messes was left with the weakest horses, while we continued on.

The opposite mountain-side was very steep and continuous—unbroken by ravines, and covered with pines and snow; while on the side we were traveling, innumerable rivulets poured down from the ridge. Continuing on, we halted a moment at one of these rivulets, to admire some beautiful evergreen-trees, resembling live-oak, which shaded the little stream. They were forty to fifty feet high, and two in diameter, with a uniform tufted top; and the summer green of their beautiful foliage, with the singing birds, and the sweet summer wind which was whirling about the dry oak leaves, nearly intoxicated us with delight; and we hurried on, filled with excitement, to escape entirely from the horrid region of inhospitable snow, to the perpetual spring of the Sacramento.

Believing that the difficulties of the road were passed, and leaving Mr. Fitzpatrick to follow slowly, as the condition of the animals required, I started ahead this morning with a party of eight, consisting of myself, Mr. Preuss and Mr. Talbot, Carson, Derosier, Towns, Proue, and Jacob. We took with us some of the best animals, and my intention was to proceed as rapidly as possible to the house of Mr. Sutter, and return to meet the party with a supply of provisions and fresh animals.

Continuing down the river, which pursued a very direct waterly course through a narrow valley, with only a very slight and narrow bottom-land, we made twelve miles, and encamped at some old Indian huts, apparently a fishing-place on the river. The bottom was covered with trees of deciduous foliage, and overgrown with vines and rushes. On a bench of the hill near by, was a hill of fresh green grass, six inches long in some of the tufts which I had the curiosity to measure. The animals were driven here; and I spent part of the afternoon sitting on a large rock among them, enjoying the pauseless rapidity with which they luxuriated on the unaccustomed food.

We had with us a large kettle; and a mule being killed here, his head was boiled in it for several hours, and made a passable soup for famished people.

Below, precipices on the river forced us to the heights, which we ascended by a steep spur 2,000 feet high. My favorite horse, Proveau, had become very weak, and was scarcely able to bring himself to the top. Traveling here was good, except in crossing the ravines, which were narrow, steep, and frequent. We caught a glimpse of a deer, the first animal we had seen, but did not succeed in approaching him. Proveau could not keep up, and I left Jacob to bring him on, being obliged to press forward with the party, as there was no grass in the forest. We grew very anxious as the day advanced and no grass appeared, for the lives of our animals depended on finding it to-night. They were in just such a condition that grass and repose for the night enabled them to get on the next day. Every hour we had been expecting to see open out before us the valley, which, from the mountain above, seemed almost at our feet. The day was nearly gone; we had made a hard day's march, and found no grass. Towns became light-headed, wandering off into the woods without knowing where he was going, and Jacob brought him back.

Near night-fall we descended into the ravine of a handsome creek 30 feet wide, and I was engaged in getting the horses up the opposite hill, when I heard a shout from Carson, who had gone ahead a few hundred yards—"Life yet," said he, as he came up, "life yet; I have found a hill-side sprinkled with grass enough for the night." We drove along our horses, and encamped at the place about dark, and there was just room enough to make a place for shelter on the edge of the stream. Three horses were lost to-day—Proveau; a fine young horse from the Columbia, belonging to Charles Towns; and another Indian horse, which carried our cooking utensils. The two former gave out, and the latter strayed off into the woods as we reached the camp.

We lay shut up in the narrow ravine, and gave the animals a necessary day; and men were sent back after the others. Derosier volunteered to bring up Proveau, to whom he knew I was greatly attached, as he had been my favorite horse on both expeditions. Carson and I climbed out of the nearest mountains; the forest land still extended ahead, and the valley appeared as far as ever. The pack-horse was found near the camp; but Derosier did not get in.

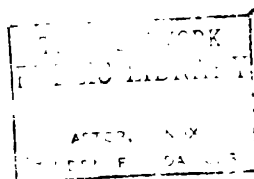
We began to be uneasy at Derosier's absence, fearing he might have been bewildered in the woods. Charles Towns, who had not yet recovered his mind, went to swim in the river, as if it were summer, and the stream placid, when it was a cold mountain torrent foaming among the rocks. We were happy to see Derosier appear in the evening. He came in, and, sitting down by the fire, began to tell us where he had been. He imagined he had been gone several days, and thought we were still at the camp where he had left us; and we were pained to see that his mind was deranged. It appeared that he had been lost in the mountain, and hunger and fatigue, joined to weakness of body and fear of perishing in the mountains, had crazed him. The times were severe when stout men lost their minds from extremity of suffering—when horses died—and when mules and horses, ready to die of starvation, were killed for food. Yet there was no murmuring or hesitation.

We continued down the right bank of the river, traveling for a while over a wooded upland, where we had the delight to discover tracks of cattle. To the southwest was visible a black column of smoke, which we had frequently noticed in descending, arising from the fires we had seen from the top of the Sierra. From the upland we descended into broad groves on the river, consisting of the evergreen, and a new species of a white oak, with a large tufted top, and three to six feet in diameter. Among these was no brushwood; and the grassy surface gave to it the appearance of parks in an old-settled country. Following the tracks of the horses and cattle, in search of people, we discovered a small village of Indians. Some of these had on shirts of civilized manufacture, but were otherwise naked, and we could understand nothing from them: they appeared entirely astonished at seeing us.

We made an acorn meal at noon, and hurried on; the valley being gay with flowers, and some of the banks being absolutely golden with the Californian poppy. Here the grass was smooth and green, and the groves very open; the large oaks throwing a broad shade among sunny spots. Shortly afterwards we gave a shout at the appearance, on a little bluff, of a neatly-built *adobe* house, with glass windows. We rode up, but, to our disappointment, found only Indians. There was no appearance of cultivation, and we could see no cattle; and we supposed the place had been abandoned. We now pressed on more eagerly than ever: the river swept round a large bend to the right; the hills lowered down entirely; and, gradually entering a broad valley, we came unexpectedly into a large Indian village, where the people looked clean, and wore cotton shirts and various other articles of dress. They immediately crowded around us, and we had the inexpressible delight to find one who spoke a little indifferent Spanish, but who at first confounded us by saying there were no whites in the country; but just then a well-dressed Indian came up, and made his salutations in very well-spoken Spanish. In answer to our inquiries, he informed us that we were upon the *Rio de los Americanos*, (the river of the Americans,) and that it joined the Sacramento river about ten miles below. Never did a name sound more sweetly! We felt ourselves among our countrymen; for the name of *American*, in these distant parts, is applied to the citizens of the United States. To our eager inquiries he answered, "I am a *vaquero* (cowherd) in the service of Capt. Sutter, and the people of this *rancheria* work for him." Our evident satisfaction made him communicative; and he went on to say that Capt. Sutter was a very rich man, and always glad to see his country people. We asked for his house. He answered, that it was just over the hill before us; and offered, if we would wait a moment, to take his horse and conduct us to it. We readily accepted this civil offer. In a short distance we came in sight of the fort; and, passing on the way the house of a settler on the opposite side, (a Mr. Sinclair,) we forded the river; and in a few miles were met, a short distance from the fort, by Capt. Sutter himself. He gave us a most frank and cordial reception—conducted us immediately to his residence—and under his hospitable roof we had a night of rest, enjoyment, and refreshment, which none but ourselves could appreciate. But the

party left in the mountains, with Mr. Fitzpatrick, were to be attended to; and the next morning, supplied with fresh horses and provisions, I hurried off to meet them. On the second day we met, a few miles below the forks of the Rio de los Americanos; and a more forlorn and pitiable sight than they presented, cannot well be imagined. They were all on foot—each man, weak and emaciated, leading a horse or mule as weak and emaciated as themselves. They had experienced great difficulty in descending the mountains, made slippery by rains and melting snows, and many horses fell over precipices, and were killed; and with some were lost the *packs* they carried. Among these, was a mule with the plants which we had collected since leaving Fort Hall, along a line of 2,000 miles' travel. Out of 67 horses and mules, with which we commenced crossing the Sierra, only 88 reached the valley of the Sacramento, and they only in a condition to be led along. Mr. Fitzpatrick and his party, traveling more slowly, had been able to make some little exertion at hunting, and had killed a few deer. The scanty supply was a great relief to them; for several had been made sick by the strange and unwholesome food which the preservation of life compelled them to use. We stopped and encamped as soon as we met; and a repast of good beef, excellent bread, and delicious salmon, which I had brought along, was their first relief from the sufferings of the Sierra, and their first introduction to the luxuries of the Sacramento. It required all our philosophy and forbearance to prevent *plenty* from becoming as hurtful to us now, as *scarcity* had been before.

The next day, March 8th, we encamped at the junction of the two rivers, the Sacramento and Americanos; and thus found the whole party in the beautiful valley of the Sacramento. It was a convenient place for the camp; and, among other things, was within reach of the wood necessary to make the pack-saddles, which we should need on our long journey home, from which we were farther distant now than we were four months before, when from the Dalles of the Columbia we so cheerfully took up the homeward line of march.





STATES AND TERRITORIES.

KENTUCKY.

THE State of Kentucky, formed from territory of Virginia, is, in point of seniority, the fifteenth State of the American Union, having been admitted to that relationship by Act of Congress on the first of June, 1792. The first Constitution of the State was submitted to Congress November 7, 1792, and a new or revised Constitution was adopted August 17, 1799. Kentucky participated in the second presidential election (1793), when George Washington was re-elected President, and John Adams Vice-President; on which occasion Richard C. Anderson and Charles Scott served as Electors for the State at large, and Benjamin Logan and Notley Conn for the District Electors. The State is situate between $36^{\circ} 30'$ and $39^{\circ} 10'$ north latitude, and between $81^{\circ} 50'$ and $89^{\circ} 28'$ west longitude, being about 300 miles in length from east to west, and about 180 in its greatest and 150 in average width, and includes an area of nearly 37,680 square miles, or 24,115,200 acres, most of which is in cultivation. The State is bounded on the north and north-west by the Ohio River, which separates it from the States of Ohio, Indiana, and Illinois; on the east by Big Sandy River and Cumberland Mountains, which divide it from Virginia; on the south by the State of Tennessee; and on the west by the Mississippi River, which separates it from the State of Missouri.

CLIMATE.—The climate of Kentucky, as indicated by its local position, is a happy medium between the frigid severity of more northern and the enervating insalubrity of more southern latitudes. No region of our country is better adapted to the production of cereals, grapes, and fruits, or the highest development of the human *physique*. Though subject to capricious changes in the winter and vernal months, the climate is milder than in the same latitude on the Atlantic slope of the Alleghanies.

FACE OF THE COUNTRY.—The country presents a varied aspect in its several portions. In the south-east, at the boundary and through several counties, the Cumberland Mountains are a prominent feature. Some in their vicinity are studded by isolated knobs and ridges; but none of them of great elevation, the highest being less than 2,000 feet.

The central and northern counties are undulated, sometimes hilly; and those west of the Cumberland River mostly level. A range of hills traverses the north-western border of the State, following the general course of the Ohio River, affording intervals of rich bottom land, extending in width, at times, to 10 or 15 miles.

SOIL AND PRODUCTIONS.—For fertility of soil, Kentucky may be ranked among the most favored portions of our highly-favored country. Perhaps no district of equal extent in the United States surpasses the region around Lexington, whether for the fertility of soil or picturesque beauty of scenery. The State is generally well timbered, producing abundance of black walnut, oak, chestnut, sugar-tree, elm, locust, mulberry, ash, poplar, cottonwood, and other varieties. Apple, pear, peach, plum, and various other fruit-trees are cultivated with great success, and yield to the cultivators a rich reward for their labor. In some parts the wild cane is indigenous, growing to a height of 10 or 12 feet, forming extensive brakes, so dense as to present a barrier difficult to penetrate. These canebrakes afford rich forage for stock, and are eagerly devoured by mules, horses, and kine. "The Barrens," a term applied to districts in the southern portion of the State, and about the headwaters of Green River, is a sad misnomer, as, with a few exceptional knobs, they are very fertile and productive. Because of the absence of the usual heavy growth of forest timber, they have been subjected to the erroneous and injurious appellation of "Barrens." Like descriptions of land in other portions of the country are designated as "oak openings." The staple productions of Kentucky are corn, tobacco, hemp, horses, mules, and cattle. Besides these, large quantities of wheat, rye, oats, barley, potatoes, pork, beef, hay, grass-seed, and other farm products are raised annually; and buckwheat, rice, cotton, cane sugar, salt, wine, cotton bagging, and silks in more limited quantities.

MANUFACTURES.—In 1860 there were 3,450 manufacturing establishments in the State, giving employment to 21,258 inhabitants, and consuming raw materials of the value of \$220,295, and producing manufactured goods valued at \$37,931,240 annually. More than twenty millions of capital is invested in these manufactories. Large quantities of coarse hempen bagging is annually manufactured and shipped South for packing cotton in bales.

RELIGIOUS DENOMINATIONS.—Of 2,175 churches in the State in 1860, 788 were Baptist, 304 Christian, 25 Episcopal, 10 Lutheran, 666 Methodist, 164 Presbyterian, 84 Cumberland Presbyterian, 83 Roman Catholic, 47 Unionist, and 8 of minor denominations—affording a church to every 530 persons in the State. The total value of church property is \$3,928,620.

PUBLIC CHARITIES.—Kentucky is not slack in her provision of eleemosynary institutions. She has an Asylum for the Insane at Lexington, and another at Hopkinsville; an Asylum for Elinguid Mutes at Danville, and one for the Blind at Louisville. Ample provision for the maintenance of these charities is made by the Legislature from time to time, as occasion requires.

REFORMATORY INSTITUTION.—The State Penitentiary is located at

Frankfort, and has rising 250 convicts. This is conducted on a plan somewhat peculiar, the convicts being farmed out to contractors, who pay the State two-thirds of the profits of convict labor, guaranteeing that such profits shall not fall short in the aggregate of \$5,000 per annum. Each convict, on his discharge, is furnished with a suit of clothes and \$5 in money.

HISTORY.—The *sobriquet* of "the dark and bloody ground," applied to Kentucky, is strikingly suggestive of the annals of her pioneer population, and their fierce and sanguinary conflicts with the aboriginal lords of the soil. While yet in the full occupancy of its primeval inhabitants, it became, by the onward march of civilization, technically part and parcel of the State of Virginia, as territory wrested by conquest from the British crown. On the other hand, the "untutored savage," whose title, derived from "the Great Spirit," and confirmed by immemorial possession, was consecrated to him by the ashes of his forefathers mingled with the soil, did not recognize, nor did his proud spirit care to heed, the adverse title set up by the new-comers to his hearth-stone and hunting-ground. He regarded all such claims with ineffable disdain, and all those who proffered them with implacable hatred. A magnificent empire was the stake, and the conflict long, sanguinary, and fierce. The rude and untaught red man was eventually compelled, by force of numbers and the appliances of superior skill, to yield dominion to his pale-faced adversary. But he maintained the conquest with an indomitable courage and persistent obstinacy that challenges the admiration of those who share the advantages of his catastrophe. The contest was maintained throughout by untold individual sacrifices, and deeds of heroic daring; and the fair land of Kentucky was thus plucked from the hands of its savage proprietary, to be made the home of civilization, the seat of hospitality, and the pride of surrounding States. The renowned *Daniel Boone* was among the very first of white men to explore (about the year 1769) the then wilderness of Kentucky, and by his many daring exploits and "hair-breadth escapes," affixed his name indelibly upon the early annals of Kentucky. Nor was it alone between the Indians and the whites that Kentucky was the chosen battle-ground; but it was the scene of sanguinary conflict between Northern and Southern tribes of Indians, who met here to adjust by wager of battle their fancied grievances or jealous discontents. An affair of mighty importance to the parties at that day transpired on the 19th of August, 1782, near the Blue Lick Springs, being an engagement between the Indians and the Kentuckians. The whites numbered only 182, and the Indians fell twice that number, or more. The affair resulted in the complete rout of the Kentuckians, who sustained a loss of nearly one-half their number engaged, in killed and wounded. This was the severest disaster encountered by the white settlers since the fatal defeat of General Braddock, near the Monongahela. Colonel Boone bore a conspicuous part in this engagement, in which one of his sons was slain. The tide of immigration setting strongly to Kentucky, to redeem that goodly land from its primeval forests, Colonel Boone, burdened by the continual diminution of his sphere, removed to newer and larger fields of action

beyond the Mississippi, where he ended his eventful career. But Kentucky, like a doting parent, sent to Missouri for his remains, and those of his wife, and with pious care gave them sepulture at her capital, and by "storied urn" commemorates his deeds.

At one period, subsequent to the close of the war of the Revolution, and before the erection of Kentucky into a separate and independent State, there were manifestations of discontent among her people, arising in part from an apprehension that the Federal Government might surrender or compromise the right, so vital to her interests, to navigate the Mississippi River to its mouth, and part from the inefficiency manifested, by both Virginia and the old Federal Congress, in the matter of protection against the inroads of the Indians. These misgivings, however, were but temporary, and gave place to a generous confidence and patriotic devotion when Kentucky took her place as an equal in the family of American States. At a still later date the public mind was exercised for a brief season by the fact that Kentucky had been selected by Aaron Burr, (after his defeat by Mr. Jefferson in their race for the Presidency,) as a base of operations in the prosecution of his schemes of disappointed ambition and treasonable enterprise. But the national Administration, prompted as well by a high sense of duty as by considerations of personal rivalry, kept a vigilant eye upon the movements of the fallen statesman, and before his plans had matured into overt acts, the hand of authority was upon him, and his vaulting ambition, with all his dreams of conquest and empire, were effectually squelched.

Situated as Kentucky has ever been, "on the border," between the great rival interests of free and involuntary labor, she has maintained her distinctive position, ever prompt to mete justice to either section, without servile surrender to any. So strong had this habit of impartiality grown upon the State, that it had well-nigh betrayed her into the fatal error of "*neutrality*," when the integrity and the very existence of the nation founded by Washington and the fathers was assailed by parricidal arms. Isolated and remote from seats of learning, Kentucky has been self-dependent and prolific in eminent orators, statesmen and divines; and it were bad affectation should we fail to mention in this connection the revered name of HENRY CLAY, "the Great Commoner," whose long and brilliant civic career reflected glory upon his State, and honor upon his whole country. Kentucky was his fond foster-mother, and it is an honor to the people of that State that in all vicissitudes they repaid, by their confidence and generous support, his faithful and patriotic services. And future generations, not of Kentuckians only, but Americans regardless of States, will make haste to recognize him as among the very ablest and purest of American statesmen.

The first white settlement in Kentucky was commenced at Boonesboro, about the year 1769. Harrodsburg was founded in 1774, and the first court held in the limits of the State was there, in 1777. Lexington was first settled about the time of the first battle of the revolution, and it is conjectured that it derived its name from the location of that important event.

INTERNAL IMPROVEMENTS.—Though Kentucky did not take a leading part in the development of her resources by works of internal improvement, yet she has by no means been an idle spectator in that race of public enterprise. So early as 1825, a company of individuals undertook—what should have been accomplished much earlier by the National Government—the construction of a canal for steamboats around the Falls of Ohio, at Louisville. This work, though quite inadequate to the wants of those “that go down to the sea in ships, that do business in great waters,” has, nevertheless, been of great advantage in conveying to the lower markets the vast products of the region drained by the Ohio, and bringing, in return, those articles of indispensable use produced only in a tropical climate. There is still opportunity for the nation to redeem, in some measure, its misspent time in this behalf, and accomplish now what it should have done long ago. In 1850 there were but 78 miles of railway completed in the State, 29 miles of which were of the Lexington and Frankfort, and 49 of the Louisville and Frankfort roads. In 1860 there was an aggregate of 569.93 miles of railway in successful operation, the cost of construction and equipment whereof was \$19,068,477. There were, also, 766 miles slack-water navigation in the State.

POPULATION.—The early settlers of Kentucky were a stalwart race of yeomen from Virginia and North Carolina; and their descendants are, in the main, well-preserved specimens of their manly quality—frank and generous in their peaceful intercourse, and gallant and daring when duty calls them to arms. In 1790 the population numbered 73,077; in 1800, 220,955; in 1810, 406,511; in 1820, 564,317; in 1830, 687,917; in 1840, 779,828. The progress of population in the last two decades is shown by the following figures:

WHITES.	FREE-COLORED.	SLAVES.	TOTAL.
1850—671,418	10,011	210,981	982,406
1860—919,517	10,684	225,483	1,155,684

CIVIL DIVISIONS.—Kentucky is divided into one hundred and ten counties. The following is a list of the counties, together with their respective county seats and population, as per the eighth national census, (1860,) namely:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Adair	Columbia,	9,509	Bracken	Brooksville,	11,021
Allen	Scottville,	9,187	Breathitt	Jackson,	4,980
Anderson	Lawrenceburg,	7,404	Breckinridge	Hardinsburg,	13,236
Ballard	Blandville,	8,692	Bullitt	Shepherdsville,	7,289
Barren	Glasgow,	16,665	Butler	Morgantown,	7,927
Bell	Owingsville,	12,113	Caldwell	Princeton,	9,318
Bell	Burlington,	11,195	Calloway	Murray,	9,915
Bell	Paris,	14,860	Campbell	Alexandria,	20,909
Bell		8,044	Carroll	Carrollton,	6,578
Bell	Danville,	9,304	Carter	Grayson,	8,516

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Casey,	Liberty,	6,466	Lyon,	Eddyville,	8,807
Christian,	Hopkinsville,	21,627	McCracken,	Paducah,	10,860
Clarke,	Winchester,	11,484	McLean,	Calhoun,	6,144
Clay,	Manchester,	6,562	Madison,	Richmond,	17,207
Clinton,	Albany,	5,781	Magoffin,		8,486
Crittenden,	Marion,	8,796	Marion,	Lebanon,	12,598
Cumberland,	Burkesville,	7,840	Marshall,	Benton,	6,982
Daviess,	Owensboro,	15,549	Mason,	Maysville,	18,222
Edmonson,	Brownsville,	4,645	Meade,	Brandenburg,	8,898
Estill,	Irvine,	6,886	Mercer,	Harradsburg,	18,701
Fayette,	Lexington,	28,599	Metcalfe,		6,745
Fleming,	Flemingsburg,	12,489	Monroe,	Tompkinsville,	8,551
Floyd,	Prestonburg,	6,888	Montgomery,	Mt. Sterling,	7,859
Franklin,	Frankfort,	12,694	Morgan,	West Liberty,	9,287
Fulton,	Hickman,	5,317	Muhlenberg,	Greenville,	10,726
Gallatin,	Warsaw,	5,065	Nelson,	Bardstown,	15,799
Garrard,	Lancaster,	10,581	Nichols,	Carlisle,	11,080
Grant,	Williamstown,	8,856	Ohio,	Hartford,	12,209
Graves,	Mayfield,	16,288	Oldham,	Lagrange,	7,288
Grayson,	Litchfield,	7,982	Owen,	Owenton,	12,714
Greene,	Greensburg,	8,896	Owsley,	Boonville,	5,881
Greenup,	Greenupsburg,	8,760	Pendleton,	Falmouth,	10,448
Hancock,	Hawesville,	6,218	Perry,	Hasard,	3,950
Hardin,	Elizabethtown,	15,189	Pike,	Piketon,	7,384
Harlan,	Mt. Pleasant,	5,494	Powell,	Powell C. H.	2,257
Harrison,	Cynthiana,	18,779	Pulaski,	Somerseset,	17,201
Hart,	Munfordsville,	10,848	Rockcastle,	Mt. Vernon,	5,848
Henderson,	Henderson,	14,262	Rowen,		2,282
Henry,	New Castle,	11,949	Russell,	Jamestown,	6,024
Hickman,	Clinton,	7,008	Scott,	Georgetown,	14,417
Hopkins,	Madisonville,	11,875	Shelby,	Shelbyville,	16,433
Jackson,		2,087	Simpkinson,	Franklin,	8,146
Jefferson,	Louisville,	89,404	Spencer,	Taylorsville,	6,186
Jessamine,	Nicholasville,	9,466	Taylor,	Campbellville,	7,481
Johnson,	Paintville,	5,806	Todd,	Elkton,	11,576
Kenton,	Independence,	25,467	Trigg,	Cadiz,	11,651
Knox,	Barboursville,	7,797	Trimble,	Bedford,	5,880
La Rue,	Hodgensville,	6,891	Union,	Morganfield,	12,791
Laurel,	London,	5,488	Warren,	Bowling Green,	17,230
Lawrence,	Louisa,	7,601	Washington,	Springfield,	11,575
Letcher,	Whitesburg,	8,904	Wayne,	Monticello,	10,259
Lewis,	Clarksburg,	8,361	Webster,		7,588
Lincoln,	Stanford,	10,647	Whiteley,	Williamsburg,	7,762
Livingston,	Smithland,	7,218	Woodford,	Versailles,	11,219
Logan,	Russellville,	19,021	Wolfe,		

CITIES AND TOWNS.—The people of Kentucky, as a whole, are perhaps more rural in their tastes and habits, and less addicted to congregating in towns and cities, than those of any other State of equal advancement in age, population, and wealth. In the enumeration of "principal cities and towns" of the United States, in the census of 1860, two only are credited to Kentucky, namely, Louisville and Lexington. Covington and Newport (though suburbs of Cincinnati) are very consider-

able cities; more populous than Lexington, and should be embraced in the list of principal cities of the State. Louisville, the most populous and commercial city of Kentucky, had a population in 1850 of 43,194; in 1853, 51,726; and in 1860, 68,033. Lexington had, in 1850, 9,189 inhabitants, and in 1865, about 14,000. Covington had, in 1850, 2,408, and in 1860, 16,471. Frankfort, the capital of the State, maintains its even tenor with a population of about 5,000; Newport, 10,046; Paducah, 4,590; Maysville, 4,106. All these, except Lexington and Frankfort, are situate on the bank of the Ohio River.

EDUCATION.—There are nominally in Kentucky some 20 colleges, though it is probable that a large portion of the number exist only in name. The National Almanac for 1864 mentions but eight, one of which was at the time closed by the war. In 1860 the colleges of the State had an annual income of \$138,244, of which \$28,350 was endowments. The State has a liberal school fund, from the investment of which she derives a handsome income for the support of public schools. Besides these colleges and primary schools, there are numerous academies and select schools in different portions of the State. There are in the State 47 public libraries, exclusive of those belonging to the colleges, containing upward of 40,000 volumes.

GOVERNMENT, FINANCES, ETC.—The Governor of Kentucky is chosen by the qualified electors for the term of four years, and receives a salary of \$2,500. The Senate consists of 38 members, elected for four years; and the House of Representatives of 100 members, elected for two years. The Legislature has stated annual sessions, convening on the first Monday of December. The Judiciary consists, 1. of a Court of Appeals, composed of one chief and three associate Judges; 2. of a Court of Chancery, where a single Chancellor presides; and, 3. of 12 Circuit Courts. The Judges of the Court of Appeals and the Chancellor receive a salary of \$1,500 each; the Circuit Judges, \$1,400 each. All these are chosen by popular election. The Judges of the Court of Appeals are elected for eight years (one every second year), and those of the Circuit Courts for six years. By the census of 1860, Kentucky is entitled to 10 members of the popular branch of Congress, and 12 in the college of Presidential Electors. The assessed value of property, real and personal, in the State in 1853, was \$366,752,852. In 1860, the real estate was assessed at \$277,925,054, and the personal at \$250,887,639, being an increase in seven years of \$151,461,940. The public debt of the State in October, 1862, was \$6,205,254. With the resources at her command, with ordinary prudence in the management of her financial affairs, that indebtedness will vanish like a morning dew, and with imperceptible bearing upon her people. In 1860 there were 24 banks in the State, having an aggregate capital of \$7,536,927, and a circulation of \$7,643,075, and specie on hand, \$2,794,351.

GEOLOGY.—The State partakes of the carboniferous rocks characteristic of the Mississippi Valley. The strata composed of sedimentary rocks, lie nearly horizontal, or with very little dip, verging from Cincinnati as a center. The blue limestone is the lowest rock in Kentucky exposed to the surface, mostly mixed with clay and magnesia; the

latter is sometimes in large quantities. It forms the surface rock in a large part of Kentucky adjacent to Ohio, extending south-east from Dayton to Danville, and east from Maysville to Madison.

MINERALS.—Kentucky abounds in bituminous coal, which, though not yet extensively mined, crops out at the river banks and adjacent hill-sides, indicating its locality, and giving assurance of abundant supply, whenever the exigencies of the people shall call it to use, whether as a manufacturing agency or for domestic purposes. Iron is manufactured to considerable extent. Lead, iron-pyrites, marble (on the cliffs of the Kentucky River), freestone, gypsum, conglomerate, and cliff limestone are the other minerals. Salt and medicinal springs are numerous in the State.

CURIOSITIES AND ATTRACTIONS.—Perhaps no region on the continent of equal area, presents an equal number and variety of objects of interest and attraction, whether to the invalid in quest of health, the philomath in prosecution of his favorite investigations, or the voluptuary seeking sensual gratifications. Prominent among these objects, and probably unrivaled in its kind on "the great globe itself," is the *Mammoth Cave*, in Edmonson County. In the number and extent of its chambers, in the length of its galleries and corridors, and in its variety of interesting objects, such as streams, mounds, stalactites, stalagmites, etc., it stands without a rival. It is said to have been explored for the space of ten miles without giving any indication of its ulterior terminus, and part of that distance in a boat on a deep river, in which are a species of fish, colorless, and wholly minus the organs of sight! Including all the lateral branches, there is an extent of probably 40 miles of subterranean labyrinth. Ponderous stalactites, formed by the droppings from the incumbent limestone rocks, are suspended from the vaulted canopy, and gigantic stalagmites bristle the floors of these mysterious chambers. One of the apartments, called the Temple, is computed to occupy an area of two acres, and to be covered by a single dome of solid rock, 120 feet high. Near Mumfordsville, in Hart County, is a remarkable spring connected with a mill-pond, the waters of which, at about 12 o'clock each day, rise 12 or 15 inches, overflow the dam, and then recede to their ordinary level, with all the regularity of the tides. There are in the State a variety of mineral and medicinal springs of popular repute, as Harrodsburg Springs, in Mercer County, Blue Lick Springs, in Nicholas County, and others, in Floyd, Grayson, Hancock, and Union counties. Cumberland Gap, in Knox County, is the passage of the river of that name between cliffs of 1,300 feet elevation through the Cumberland Mountains. In Allen County, 17 miles from Bowling Green, is a natural fortification consisting of a wall of solid limestone 200 yards long, 40 feet high, 30 feet thick at base, and 6 feet at top; it is situate at the crossing of a neck formed by a bend in Drake's Creek, and incloses a peninsula of 200 acres, elevated 100 feet above the river. On the top of this natural mound is an area of 3 acres, inclosed by a wall and ditch, forming one of the strongest fortresses in the world. At Big Bone Licks, Boone County, are deposits of immense bones of extinct mastodons, specimens of

which have found their way into the cabinets of savans in Europe and America.

RIVERS.—Kentucky is well supplied with rivers, bordered by valleys of unsurpassed fertility, and affording great facilities for internal navigation, and which will, when the inhabitants shall have readjusted their system of labor so as to call it into requisition, furnish ample power for the propulsion of machinery. The splendid Ohio forms its entire northern and north-western boundary, while the majestic Mississippi, "the Father of Waters," prescribes its western limit. The Big Sandy, which forms the north-eastern boundary of the State, pays its tribute (as do all the important streams of Kentucky) to the Ohio. The Cumberland River rises in the south-east part of the State, emptying into the Ohio at Smithland; is about 600 miles long, and navigable for steamboats to Nashville. The Tennessee River enters Kentucky about 70 miles from where it falls into the Ohio, at Paducah, (west of the Cumberland,) and is navigable for steamboats far beyond the limits of Kentucky, into Tennessee and Alabama. The other important streams, enumerating from the east, are the Licking, Kentucky, Salt, and Green Rivers. These flow in a north-west direction, varying in length from 100 to 350 miles, and (except the Licking) are, in the order named, navigable by steamboats 62, 35, and 200 miles from their respective mouths. These rivers, permeating the various portions of the State, afford facilities for extensive trade with New Orleans and other points on the Mississippi and Ohio Rivers. Cotton bagging and hemp cordage are extensively manufactured for export.

CITIES AND TOWNS.—*Louisville*, a flourishing city, port of entry, and seat of justice of Jefferson County, is situate on the left bank of the Ohio River, at the head of the falls and at the mouth of Beargrass Creek. It is, by the river, 145 miles from Cincinnati, 53 miles west of Frankfort, and 590 from Washington City. A railway of 93 miles in length connects it with Frankfort and Lexington. It stands on an elevated plane, about 70 feet above low water, and its situation and surrounding scenery are exceedingly beautiful. Eight handsomely-improved streets, parallel with the river, extend nearly two miles in length. These vary in width from 60 to 120 feet, and are intersected at right-angles by more than 30 others, of a uniform width of 60 feet. The most remarkable public buildings are a City Hall, Court-house, Marine Hospital, the First Presbyterian Church, St. Paul's (Episcopal) Church, the Medical Institute, and the University of Louisville. Louisville unquestionably owes its importance, if not its existence, to its location by the falls, which interpose serious obstruction to navigation at this point. Various schemes were projected, at an early day, to overcome that obstruction, and, among others, the inhabitants on the opposite shore set on foot a scheme of a lottery, and the tickets of the Jeffersonville Canal Lottery were extensively hawked, far and near. Whether the lottery was ever drawn is a question for the antiquary. One thing, however, is patent, it never contributed to facilitate the passage of a boat over the falls, and for years after, the formidable obstruction remained intact. In 1825, however, operations were com-

menced that resulted in the construction of the Louisville Canal—a work of great utility indeed, but vastly short of the just demand of the public interested in the navigation of the Upper Ohio. It is a grievous tax upon the enterprise and patience of the people of five States concerned in that navigation, that they are compelled to pay “toll, tribute, and custom” where every freedom and facility should be afforded. Louisville is a commercial rather than a manufacturing city. Nevertheless, it has a large amount of capital invested in manufactures of different kinds, producing manufactures valued at more than \$8,000,000 annually, and giving employment to a large number of artisans and laborers.

Lexington is the first city in the State, in point of time, and second to none in the beauty of its surroundings. Few places of its age and magnitude can compete with it in wealth and refinement. It is the capital of Fayette County, a district of surpassing beauty and fertility. The city is laid out in rectangular blocks, the streets well improved, and made attractive by rows of ornamental trees. Main street is 80 feet wide and more than a mile long. The surrounding country is gently undulated, highly cultivated, and dotted ever and anon with elegant residences. Here is Ashland, made all but sacred by the lifelong residence of the matchless Clay. Transylvania University is located here, and is a flourishing literary and scientific institution. The buildings of the University, and the State Lunatic Asylum are among the prominent public edifices. The city contains, also, a Court-house, several banks, a public library, museum, orphan asylum, and 12 or 15 churches, and about 14,000 inhabitants. It has immediate railway connection with Frankfort, Louisville, Maysville, and other important points. It was founded in the memorable year 1776, and incorporated in 1782.

TENNESSEE.

TENNESSEE is bounded on the north by Kentucky and Virginia, east by North Carolina, from which it is separated by the Alleghany Mountains, south by Georgia, Alabama, and Mississippi, and west by Arkansas and Missouri, from which it is separated by the Mississippi River. It lies between 35° and 36° 36' north latitude, and between 81° 40' and 90° 15' west longitude—being about 430 miles in its greatest length from east to west, and 110 miles in breadth, including an area of about 45,600 square miles, or 29,184,000 acres, of which only 5,175,173 were improved in 1850. The State is commonly divided into three sections: the part east of the Cumberland Mountains is called East Tennessee; between the Cumberland Mountains and the Tennessee River, it takes the name of Middle Tennessee; and west of the river just named, that of West Tennessee.

FACE OF THE COUNTRY.—Tennessee is very agreeably diversified

with mountain, hill, and plain, containing within its limits fertility of soil, beauty of scenery, and a delightfully temperate climate. On the east it is separated from North Carolina by different ridges of the Appalachian chain, passing under the various local names of Stone, Iron, Bald, and Unaka Mountains. Then follow the valleys of the Holston and other rivers, forming the head-waters of the Tennessee. Next succeed the Cumberland Mountains, an outlying ridge of the Alleghanies, which enters the State from Kentucky, and crosses it, in a south-west direction, into Alabama. The height of these mountains, which spread over about 50 miles, is variously estimated at from 1,000 to 2,000 feet. They are wooded to the tops, and embosom delightful and fertile valleys. Their summits are often rounded and cultivated, while others are too rugged for tillage. Middle Tennessee, lying between these mountains and the Tennessee River, is moderately hilly, while the section between the river last named and the Mississippi, called West Tennessee, is either level or gently undulating.

RIVERS.—Tennessee is bounded on the west by the great Mississippi, and is twice crossed by the river whose name it bears. The Tennessee River, the largest affluent of the Ohio, is formed by two branches, the Clinch and the Holston, which rise among the Alleghany Mountains of Virginia, and unite at Kingston, in Tennessee. It flows first south-west to Chattanooga, near the south boundary of the State, where it turns toward the north-west and west; but its progress being opposed by the Cumberland Mountains, it changes its course to the south-west, makes an extensive circuit of near 300 miles through North Alabama, and touches the State of Mississippi at its north-east extremity. Here it again enters the State of Tennessee, traverses its whole breadth from south to north, and gradually curving toward the west, crosses Kentucky, and enters the Ohio River at Paducah, 48 miles from its mouth, near 37° north latitude, and $88^{\circ} 35'$ west longitude. The length of the Tennessee proper is estimated at 800 miles, and if we include the Holston, its longest branch, it will measure about 1,100 miles. The chief towns on its banks are Knoxville and Chattanooga, in Tennessee; Tusculumbia and Florence, in Alabama, and Paducah, in Kentucky. The whole descent of the river and branches is computed to be about 2,000 feet. The channel is obstructed by no considerable falls or rapids, excepting the Muscle Shoals, in Alabama, where the river runs over flint and limestone rocks for more than 20 miles, affording immense motive power. Steamboats ascend the river from its mouth to Florence, at the foot of the Muscle Shoals, about 280 miles. Above these rapids it is also navigable by steamboats at all seasons, as far as Knoxville, on the Holston, a distance of near 500 miles. The navigable portions of the river are connected by a railroad. The region through which this river flows is generally fertile, and in the upper part of its course is beautifully diversified with mountains and valleys. The Little Tennessee, which, by some writers, is described as the main stream, rises at the base of the Blue Ridge, near the frontier of North Carolina and Georgia, and flowing north-west into Tennessee, unites with the Holston about 25 miles south-west of Knoxville, after a tortuous course of more

than 150 miles. The areas drained by this system of rivers is estimated by Darby at 41,000 square miles. In the winter of 1831-32 this river was frozen over, even in the State of Alabama—an event of very rare occurrence.

The Cumberland makes a bend into the north of the State, through which it courses for about 150 miles before it returns to Kentucky, thus giving that portion of the State water communication with the other parts of the great Mississippi and Ohio Valleys. The Hatchee, a tributary of the Mississippi; Duck River, of the Tennessee, from Middle Tennessee, and the Holston, Powell's, and Clinch, tributaries of the same rivers in East Tennessee, are the other principal streams. The Tennessee has a total course of nearly 900 miles, about 400 of which are within the State, and 700 navigable for steamboats (with the exception of that portion in Alabama called the Muscle Shoals) to its junction with the Holston, in East Tennessee. The Cumberland is navigable 400 miles for steamboats to Carthage, about 50 miles above Nashville, in a direct line. The tributary streams are all more or less navigable, either for steam or keel-boats, during high water. All the waters of this State ultimately reach the Mississippi, though generally by a circuitous course. The Forked Deer River is navigable 150, the Big Hatchee above 100, and the Obion 60 miles for steamboats.

OBJECTS OF INTEREST TO TOURISTS.—In common with other limestone regions, Tennessee has numerous caves, several of which are at least 100 feet below the surface, and a mile in extent. Some are several miles in length. One has been descended for about 400 feet below the surface, where was found a stream of sufficient force to turn a mill. Another, on the top of Cumberland Mountains, has a cave of perpendicular descent, whose bottom has never been sounded. Big Bone Cave is so called from the bones of the mastodon found within it. These caves are all in the Cumberland Mountains. In a spur of the same mountains, called the Enchanted Mountain, are found the impressions of the feet of men and animals in the hard limestone rock, whose appearance has never been accounted for. Near Manchester, in Coffee County, is an old stone fort, situated between two rivers, and including 47 acres, inclosed by a wall, on which trees are growing, believed to be 500 years old. In Franklin County is a railway tunnel, through a spur of the Cumberland Mountains, 2,200 feet long.

COUNTIES.—The following is a list of the counties in Tennessee, with their county towns, and the population of each county, according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Anderson,	Clinton,	7,068	Cannon,	Woodbury,	9,509
Bedford,	Shelbyville,	21,584	Carroll,	Huntington,	17,487
Benton,	Camden,	8,463	Carter,	Elizabethtown,	7,124
Bledsoe,	Pikeville,	4,459	Cheatham,	Ashland City,	7,253
Blount,	Maryville,	13,270	Claiborne,	Tazewell,	9,643
Bradley,	Cleveland,	11,701	Cocke,	Newport,	10,408
Campbell,	Jacksonboro,	6,712	Coffee,	Manchester,	9,699

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Cumberland,	Crossville,	8,460	Madison,	Jackson,	21,585
Davidson,	Nashville,	47,055	Marion,	Jasper,	6,190
Decatur,	Decaturville,	6,276	Marshall,	Lewisburg,	14,592
De Kalb,	Smithville,	10,578	Mauzy,	Columbia,	32,498
Dickson,	Charlotte,	9,982	Meigs,	Decatur,	4,667
Dyer,	Dyersburg,	10,536	Monroe,	Madisonville,	12,607
Fayette,	Somerville,	24,327	Montgomery,	Clarksville,	20,896
Fentress,	Jamestown,	5,054	Morgan,	Montgomery,	8,353
Franklin,	Winchester,	13,848	Obion,	Troy,	12,817
Gibson,	Trenton,	21,777	Overton,	Livingston,	12,637
Giles,	Pulaski,	26,166	Perry,	Linden,	6,042
Granger,	Rutledge,	10,982	Polk,	Benton,	8,726
Green,	Greenville,	19,094	Putnam,	Cookville,	8,558
Grundy,	Altamont,	8,093	Rhea,	Washington,	4,991
Hamilton,	Harrison,	18,258	Roane,	Kingston,	13,583
Hancock,	Sneedville,	7,020	Robertson,	Springfield,	15,265
Hardeman,	Bolivar,	17,769	Rutherford,	Murfreesboro,	27,918
Hardin,	Savannah,	11,214	Scott,	Huntsville,	8,519
Hawkins,	Rogersville,	16,162	Sevier,	Sevierville,	9,122
Haywood,	Brownsville,	19,232	Sequatchie,		2,120
Henderson,	Lexington,	14,491	Shelby,	Memphis,	48,092
Henry,	Paris,	19,133	Smith,	Carthage,	16,857
Hickman,	Centerville,	9,312	Stewart,	Dover,	9,896
Humphreys,	Waverly,	9,096	Sullivan,	Blountville,	13,552
Jackson,	Gainesboro,	11,725	Sumner,	Gallatin,	22,080
Jefferson,	Danbridge,	16,043	Tipton,	Covington,	10,706
Johnson,	Taylorville,	5,018	Union,	Maynardville,	6,117
Knox,	Knoxville,	22,818	Van Buren,	Spencer,	2,581
Lauderdale	Ripley,	7,559	Warren,	McMinnville,	11,147
Lawrence,	Lawrenceburg,	9,320	Washington,	Jonesboro,	14,829
Lewis,	Newburg,	2,241	Wayne,	Waynesboro,	9,116
Lincoln,	Fayetteville,	22,828	Weakley,	Dresden,	18,216
McNairy,	Purdy,	14,732	White,	Sparta,	9,881
Macon,	Lafayette,	7,290	Williamson,	Franklin,	23,827
McMinn,	Athens,	13,555	Wilson,	Lebanon,	26,072

EDUCATION.—The following colleges and professional schools were in operation in Tennessee in 1860: University of Nashville, at Nashville; Franklin College, near Nashville; East Tennessee University, at Knoxville; Cumberland University, at Lebanon; Jackson College, at Columbia; Union College, at Murfreesboro; Greenville College, at Greenville; Washington College, in Washington County; South-western (Presbyterian) Theological Seminary, at Maryville; Theological School (Cumberland Presbyterian) of Cumberland University; Medical Department of East Tennessee University.

Tennessee had in 1860 a common school fund, declared by the State Constitution to be perpetual, and not to be diminished. It consisted of \$1,500,000, deposited in the Bank of Tennessee; of property given by deed, will, or otherwise, for the use of common schools; proceeds of escheated lands, and lands donated by the United States; and the personal effects of intestates having no kindred entitled thereto by the laws of distribution. The annual fund for distribution to the schools in

1859 was \$230,430 27. The distribution was made at the rate of 75 cents for each child of school age. Of such children there were in the State 294,447.

The educational and charitable institutions of Tennessee suffered much during the late civil war. The common school fund was appropriated by the Confederate authorities. The Tennessee Blind School, a State institution, near Nashville, was entirely destroyed by the Federal forces. The pupils, some forty in number, were distributed among their friends, or became dependent on private charity. The library, furniture, and fixtures of the East Tennessee University, chartered and endowed by the State in 1807, were entirely destroyed by the same agency. The State Deaf and Dumb School, at Knoxville, was used for hospital purposes by the Federal army.

CLIMATE, SOIL, AND PRODUCTIONS.—The climate of Tennessee is mild; considerable snow sometimes falls in the winters, which, however, are generally short. The summers are free from the intense heat of the Gulf States. The temperature of that portion of the State among the Cumberland Mountains is particularly agreeable. Most parts of the State are healthy, except on the alluvions of the great rivers. The soil of Tennessee is generally arable, and of a good quality. In East Tennessee much of the land among the mountains is poor and ill-adapted to cultivation, but even here the valleys are very fertile. This section is favorable to grazing, and great numbers of live stock are exported from thence to the Atlantic States. A greater number of mules (75,303 in 1850, including asses,) are raised in Tennessee than in any other State in the Union. Middle Tennessee has much good land. Western Tennessee has a rich black mold, and on the shores of the Mississippi and Tennessee Rivers are extensive brakes of gigantic cane. Indian corn, tobacco, and cotton are the great staples. In 1850 Tennessee produced more hogs than any State in the Union, was fifth in the amount of Indian corn produced, fourth in that of tobacco, and fifth in cotton. The other articles cultivated are wheat, rye, oats, buckwheat, barley, sweet and Irish potatoes, wool, maple sugar, flax, hemp, hay, cheese, butter, wine, whisky, and fruits; of the latter, apples, pears, and plums. According to the census of 1860, there were in Tennessee 6,897,974 acres of improved land in farms, and 13,457,960 acres of unimproved land in farms. The cash value of the farms was \$272,555,054, and of farming implements and machinery, \$8,371,095. The number of horses in the State was 289,548; of asses and mules, 119,221; of milch cows, 247,105; of working oxen, 104,495; of other cattle, 408,574; of sheep, 773,317, and of swine, 2,343,948. The live stock was valued at \$61,257,374, and the animals slaughtered at \$12,345,696.

The annual produce of wheat was 5,409,863 bushels; of rye, 265,344; Indian corn, 50,748,266; oats, 2,343,122; rice, 30,516 pounds; tobacco, 38,931,277 pounds; ginned cotton, 212,019 bales of 400 pounds each; wool, 1,400,508 pounds; peas and beans, 550,913 bushels; Irish potatoes, 1,174,647; sweet potatoes, 2,614,558; barley, 23,489, and buckwheat, 14,421 bushels.

The yearly orchard products were valued at \$314,269. There were produced 13,562 gallons of wine. The value of the garden produce for market was \$274,163. There were made 10,000,823 pounds of butter, and 126,744 pounds of cheese. There were raised 146,027 tons of hay; 8,062 bushels of clover seed; 41,532 bushels of other green seeds, and 2,329 pounds of hops.

Of dew-rotted hemp, there were six tons; of water-rotted, ten, and of other prepared hemp, 787 tons. The amount of flax raised was 161,740 pounds; flax seed, 9,611 bushels, and silk cocoons, 50 pounds. There were made 117,359 pounds of maple sugar; 301,076 gallons of cane and maple molasses; 485,828 gallons of sorghum; 104,286 pounds of beeswax, and 1,494,680 pounds of honey. The value of home-made manufactures was \$3,166,195. The tobacco crop of Tennessee for 1866 was estimated at 40,000,000 pounds, and the cotton crop at 148,000 bales.

MANUFACTURES.—The natural water-power of the State, especially of East Tennessee, combined with an abundance of coal and other fuel, together with railway connections with the Atlantic and Gulf States, can hardly fail to make Tennessee a great manufacturing country, as, in addition to the advantages alluded to, she has, within her own borders, or in her immediate neighborhood, the staple raw materials, as cotton, wool, hemp, etc. There were in Tennessee in 1850, according to the census, 2,887 manufacturing establishments, and in 1860, 2,420, with a capital invested in the same in 1850 of \$6,527,729, and of \$17,270,000 in 1860. The cost of the raw material used in the same, for the year, was \$5,166,886 in 1850, and \$9,365,000 in 1860, and the average number of male hands employed in 1850 was 11,080, and 11,960 in 1860, and of female hands, 959 in 1850, and 1,135 in 1860. The total value of manufactured products was \$9,725,608 in 1850, and \$17,100,000 in 1860.

POPULATION.—According to the United States census, the aggregate population of Tennessee in 1850 was 1,002,717, and in 1860 it was 1,109,801, having increased in ten years 107,084. The number of white males in 1860 was 422,810, and of white females, 403,972—total number of whites, 826,782. The number of free colored males was 3,538, and of free colored females, 3,762—total number of free colored, 7,300. The number of male slaves was 136,370, and of female slaves, 139,349—total number of slaves, 275,719. The total vote cast by Tennessee at the Presidential election in 1860 was 145,333.

FOREST TREES.—The forest trees are—pine in East Tennessee; sugar maple, juniper, red cedar, and savin, in the mountains; poplar, hickory, walnut, oak, beech, sycamore, locust, cherry, etc.

ANIMALS.—The animals are the same as are found in the adjacent States of Kentucky and Virginia, viz.: raccoons, deer, squirrels, and sometimes, though rarely, bears in the wilder sections of the State.

COMMERCE.—Tennessee has but little foreign commerce, though very favorably located for domestic trade, being washed on the west by the Mississippi River, twice crossed by the Tennessee River, and its northern portion traversed for more than 100 miles by the Cumberland, all of

which are navigable for steamboats. The exports are mainly live stock, pork, bacon, lard, butter, ginseng, cotton bagging, flour, Indian corn, fruits, tobacco, cotton, hemp, feathers, and saltpetre, which find their way mostly to New Orleans, and thence either to northern or foreign ports, but new exits have been opened for the products of East and Middle Tennessee, the one through Virginia, and the other through Georgia and South Carolina, both by railroad.

HISTORY.—Tennessee was the first State settled by Anglo-Americans west of the Alleghanies, emigrants from North Carolina having built Fort Loudon, in East Tennessee, as early as 1757. But this settlement was attacked by the savages, and the inhabitants either murdered or driven off. Colonization, however, was recommenced in a few years afterward in the same section of the State. This colony was also harassed by the Indians till after the Revolutionary war. Originally, Tennessee formed a part of the possessions of North Carolina, which State ceded it to the general government in 1784; but afterward revoked the grant, when the inhabitants attempted to form an independent State under the name of Franklinia. It was finally ceded to the United States government, and formed a part of the south-western Territory till its admission as a sovereign State in 1796, forming the sixteenth member of the confederacy. Tennessee took an active part in the war of 1812, and sent several distinguished leaders to its armies; prominent among whom was General Andrew Jackson, since so celebrated for his administration of the affairs of the central government during his presidency. James K. Polk, the eleventh President of the United States, was also a citizen of this State.

CITIES AND TOWNS.—Nashville, a handsome and flourishing city, capital of the State and of Davidson County, is situated on the left bank of Cumberland River, 200 miles from its mouth, 230 miles east-north-east of Memphis, 206 miles south-west of Lexington, in Kentucky, and 684 miles from Washington. Latitude $36^{\circ} 9'$ north, longitude $86^{\circ} 49'$ west; elevation above the sea 460 feet. It is the most wealthy and populous city of Tennessee, and is distinguished for its enterprising spirit, literary taste, and polished society. Many of the private residences are built on a scale of palatial magnitude and splendor, and the public buildings exhibit a corresponding character. The new Capitol, which stands on a commanding eminence, 175 feet above the river, is one of the most noble, magnificent, and costly structures in America. The material is of a fine limestone, which was quarried on the spot, and nearly resembles marble. The dimensions are 240 feet by 135, and the estimated cost \$1,000,000. It is built, as it is stated, entirely of stone and iron, without any wood about it, except the plank on which the copper roofing is fastened; the floor and inner walls are of dressed stone. The foundation of the Capitol was laid in 1845. A Lunatic Asylum, on a large scale, has been erected in the vicinity. The State Penitentiary at this place is 310 feet by 50, containing 200 cells. The University of Nashville was founded in 1806. The Medical College, connected with the University, was opened in 1851: it occupies a capacious building, and had, in 1860, 400 students.

There are also a number of female seminaries, the largest of which was attended in 1860 by above 450 pupils. About 12 newspapers were published here, five or six of which were dailies. The mineral cabinet of the late Dr. Troost contained the largest private collection in the United States. The city is lighted with gas, and supplied with water raised from the Cumberland River. Nashville has expended large sums in the construction of macadamized turnpikes, eight of which radiate in different directions. The river is navigated during high water by large steamboats from its mouth to this point, and a number of splendid packets are owned here. The shipping of the port, June 30, 1859, amounted to an aggregate of 5,120 tons, enrolled and licensed. This city is the center of an active trade and the seat of manufactures of various kinds. Nashville is the terminus of the Nashville and Chattanooga Railroad, 150 miles long, which was finished in 1852, at an expense of about \$3,000,000. The road is built in a very substantial manner, and completes the connection with Charleston and Savannah. The construction of this railroad greatly enhanced the value of property, and gave vigorous impulse to the prosperity and improvement of the place. Other railroads have been constructed, which connect this city with Louisville, Memphis, New Orleans, etc. There are five important railroads radiating from Nashville, viz.: the Tennessee and Alabama, Louisville and Nashville, Edgefield and Kentucky, Nashville and Chattanooga, and the Nashville and North-western.

There were in 1860 two fine bridges over the Cumberland River at this point; one a railroad bridge of wood, with an immense draw of 280 feet, and two stationary spans, each of 200 feet, was finished in 1859 at a cost of \$240,000; the other a wire suspension bridge of more than 700 feet span, and 110 feet above the water, was begun in 1850, and cost about \$100,000. A public school system went into operation in Nashville in 1855, and in 1860 there were three large schools, with an aggregate attendance of 2,000 pupils. The principal benevolent institutions were the City Hospital, Protestant and Catholic Asylums, House of Industry, Hospital of the Sisters of Charity, a workhouse, established in 1859, and the Tennessee Asylum for the Blind, founded in 1844. The number of prisoners in the State Penitentiary, on the 30th of September, 1865, was 182, of whom 103 had been convicted by the civil, and 79 by the military authorities. There were in Nashville in 1860, 27 churches, including a Roman Catholic Cathedral, eight banks, a savings bank, three insurance companies, and several large hotels, one of which, the Maxwell House, then building, would accommodate 600 guests. The average annual shipments from the port of Nashville were put down in 1860 at 30,000 bales of cotton, 6,000 hogsheads of tobacco, 2,000,000 bushels of wheat, 6,000,000 of Indian corn, 10,000 casks of bacon, 25,000 hogs, and 2,500 tierces of lard. The neighborhood is a famous stock-raising country, and has a high reputation for blood-horses, jackasses, mules, cattle, sheep, hogs, and Cashmere goats. The leading business of the city is dry goods, hardware, drugs and groceries. Book publishing was recently carried on in Nashville more extensively than in any other western town, and the

publishing house of the Southern Methodist Conference was one of the largest book manufactories in the United States. There were in the city in 1860 three flour mills, and eight or ten planing mills, and about the same number of machine shops. The value of the taxable property was about \$15,000,000.

The State Lunatic Asylum is seven miles from the city, and twelve miles east is the Hermitage, the celebrated residence of Andrew Jackson. The first permanent settlement at Nashville was made in 1779-80; the town was incorporated in 1784; received a city charter in 1806, and was made the State Capital in 1812.

Memphis, a flourishing city, and port of entry of Shelby County, is beautifully situated on the Mississippi River, just below the mouth of Wolf River, and on the fourth Chickasaw Bluff, 420 miles below St. Louis, and 209 miles west-south-west of Nashville. It is the most populous and important town on the river between St. Louis and New Orleans, and occupies the only eligible site for a commercial depot from the mouth of the Ohio to Vicksburg, a distance of 650 miles. The bluff on which it stands is elevated about 30 feet above the highest floods, and its base is washed by the river for a distance of 3 miles, while a bed of sandstone projects into the stream and forms a convenient landing. The appearance of Memphis from the river is remarkably fine. An esplanade several hundred feet wide extends along the bluff in front of the town, and is bordered with blocks of large warehouses. The city is handsomely laid out, and adorned with many elegant private residences. It had, in 1855, a population of 16,000; in 1860 it reached over 22,000. It had, at the latter date, fifteen churches, three seminaries for young ladies, several academies, an orphan asylum, two medical colleges, five daily and three weekly newspapers, seven banks, and seven insurance offices. Its public schools numbered 1,682 pupils. Its shipments of cotton for the year ending September 1, 1860, amounted to about 400,000 bales. At that time it contained an oil factory, a car and wagon factory, a steam boiler factory, and three iron foundries. The city is entered by the Memphis and Charleston, the Memphis and New Orleans, the Memphis and Ohio, and the Memphis and Little Rock railroads. Memphis was laid out in 1820.

Knoxville, a flourishing city, capital of Knox County, and formerly the seat of the State government, is beautifully situated on the right bank of the Holston River, 4 miles below its confluence with the French Broad River, 185 miles east of Nashville, and 204 miles south-east of Lexington, Kentucky. The situation is elevated and healthy, commanding a beautiful view of the river, and the Blue Mountains of Chilhowee, some 30 miles distant. The river is navigable for steamboats at all seasons, from this point downward, and during the winter and spring they extend their trips up the river as far as Kingsport. This region, however, is not dependent on the river for the means of transportation. Knoxville is the place of junction of the East Tennessee and Georgia, and the East Tennessee and Virginia railroads. It is the principal commercial center in East Tennessee. It contains the State Asylum for the Deaf and Dumb, and the University of East Tennessee,

founded in 1806. It had, in 1860, three academies, six churches, four newspaper offices, three banks, a large car factory, a flouring mill, and an extensive manufactory of glass.

Knoxville was settled in 1789, and was named in honor of General Henry Knox, Secretary of War under President Washington. It became the capital of the Territory in 1794, and was the seat of the Territorial, and afterward of the State government, until the latter was removed to Murfreesboro, in 1817.

Chattanooga is situated on the Tennessee River, 250 miles by water below Knoxville, and 140 miles south-east of Nashville. It is the terminus of the Nashville and Chattanooga Railroad, and of the Western and Atlantic Railroad, which connects it with the chief towns of Georgia. The Tennessee River is navigable by steam during about eight months in the year, and by small boats at all times. These circumstances render Chattanooga one of the most important and flourishing towns of the State. After the completion of the Western and Atlantic Railroad, in 1850, the population increased at a rapid rate. The surplus productions of East Tennessee, and part of Middle Tennessee, are mostly shipped from this point. The surrounding region is liberally supplied with water-power and timber, and the hills contain abundance of stone-coal and iron ore.

Columbia, a beautiful and thriving town, capital of Maury County, is on the left bank of Duck River, 41 miles south-by-west of Nashville. The surrounding country is populous and highly productive. The town has considerable trade, and is distinguished by the excellence of its schools. It is the seat of Jackson College, and of three female seminaries. The Columbia Female Institute is a splendid structure, surrounded with beautiful grounds. Columbia was the residence of President Polk previous to his election in 1844.

Murfreesboro, a handsome city, and capital of Rutherford County, is on the railroad from Nashville to Charleston, in South Carolina, 30 miles south-east of Nashville. It is situated in a beautiful plain, surrounded by a healthy and fertile country. The Union University at this place is a flourishing institution, founded by the Baptists, in 1841. There is also a female institute, under the direction of the Baptists, Soule Methodist Female College, founded in 1852, and there were, in 1860, two high-schools and a military institute. The town of Murfreesboro was established in 1811, and incorporated in 1817. From its incorporation, it was the capital of the State until 1827, when the seat of government was removed to Nashville.

GOVERNMENT.—By the Constitution of Tennessee, adopted in 1835, the Governor is elected by popular vote for two years, and the Legislature consists of a Senate of 25 members, and a House of Representatives of 75 members. The Legislature meets biennially on the first Monday in October in the odd years. The Secretary of State, Treasurer, Controller, and Attorney-General are chosen by the Legislature on joint ballot—the first-named for four and the others for two years.

The Judiciary consists of a Supreme Court of three judges, elected by the people for eight years, and sixteen Circuit Judges and six

Chancellors of the Court of Chancery, also elected by the people for eight years. There are three special courts—the Criminal Court of Davidson County, in which Nashville is situated, the Criminal Court of the city of Memphis, and the Common Law and Chancery Court of the same city.

STATE BONDS.—The issues of Tennessee include \$3,347,340 of Improvement Bonds, bearing five per cent. interest, \$2,115,400 of Improvement Bonds, bearing six per cent. interest, and \$13,911,900 of Railroad Bonds, known as "Long Bonds," also six per cents. The debt itself is classified under different heads, and the following shows the total amount of each, and interest due to January 1, 1866:

	ORIGINAL.	INTEREST.	TOTAL.
State debt proper,.....	\$3,894,607	\$349,558	\$4,244,160
State Bonds loaned,.....	14,006,008	3,769,507	17,775,507
State Bonds indorsed,.....	2,207,000	1,550,680	2,759,680
Aggregate debt and liabilities,.....	\$20,107,607	\$5,169,740	\$25,279,347

By an act of the State Legislature, passed November 3, 1865, the Governor of the State was authorized to issue the Six-per-cent. Coupon Bonds of the State, bearing date January 1, 1866, and payable January 1, 1892, to an amount sufficient to pay off all the bonds and interest past due, as well as that to fall due January 1, 1866, or bonds that might fall due in 1867, said bonds to be similar in every respect to the bonds issued under the act of February 11, 1852, and the acts amendatory thereof. This issue is known on the market as the "New Bonds."

MINERALS, MINERAL SPRINGS, ETC.—Gold has been found in the south-east part of the State. Among the other metallic minerals are iron in abundance, and in East and Middle Tennessee some lead, especially in Carter County, silver, zinc, manganese, and magnetic iron ore. Of the earthy minerals, coal, the most abundant and valuable, is found in large quantities in the counties among the Cumberland Mountains, and covering an area, according to Taylor, of 4,300 square miles. There is also gypsum of a fine quality, beautiful varieties of marble, niter, slate, (suitable for roofing,) alum, burr-stones, and limestone, which forms the bed of a large portion of the State. Salt springs exist, but not of a very rich quality; there are also some valuable mineral springs. The iron business has attracted the attention of capitalists. Rich deposits of copper are found in the south-east part of Tennessee, in Polk and Monroe Counties, which have been extensively worked.

THE MEMPHIS AND CHARLESTON RAILROAD.—The Memphis and Charleston Railroad, from its geographical position and direction, and from its eastern connections, continuing it to the great Atlantic ports, from Alexandria to Savannah inclusive, is evidently one of the most important lines of transit in the States south of the Ohio River. Commencing at Memphis, it traverses South-western Tennessee; then passing south into Mississippi, striking Corinth, and thence eastward

through Alabama, *via* Tuscumbia, Decatur, and Huntsville to Stevenson, where it connects with the Nashville and Chattanooga Railroad, a distance from Memphis of 272 miles; thence it is continued to Chattanooga by the latter road a further distance of 37 miles. As is well known, this latter point is the most important between the Mississippi and the seaboard, being a grand center of converging railroads, which come in from Alexandria, Richmond, Charleston, and Savannah. At Memphis the road is connected with the Memphis and Little Rock Railroad, nearly completed to the capital of Arkansas. At Moscow it gives the Somerville branch of 14 miles. At Grand Junction, 52 miles east of Memphis, it is crossed by the Mississippi Central Railroad; at Corinth, 93 miles east, by the Mobile and Ohio Railroad; and at Decatur, 188 miles east, by the Nashville and Decatur Railroad, etc. There is also a branch from Tuscumbia to Florence. Thus, in whatever direction, whether looking east, west, north or south, we find the road connected or intersected by the most important lines of the country, reaching with their combinations from the lakes to the gulf, and from the Atlantic to the far interior.

INDIANA.

INDIANA, the nineteenth State of the American Union, was first settled at Vincennes, by a French colony, in the year 1730. It was the second State formed of the great North-western Territory. It was admitted into the Union December 11, 1816, having adopted a Constitution on the 29th of June of that year, which was revised and amended in 1851. It is bounded on the north by Lake Michigan and the State of Michigan, on the east by the State of Ohio, on the south by the Ohio River, separating it from the State of Kentucky, and on the west by Illinois, from which it is partly separated by the Wabash River. It lies between $37^{\circ} 41'$ and $41^{\circ} 52'$ north latitude, being about 275 miles in its greatest length from north to south, and about 135 miles in width, forming nearly a parallelogram, and including an area of 33,809 square miles, or 21,637,760 acres, fully two-thirds of which is yet virgin soil of the most fertile and productive character. Compared with the other States of the Union, by the census of 1860, Indiana is the 25th in extent of area, the 6th in population, the 10th in density of population. From these facts may be inferred the capacity of the State for sustaining a dense population—equal, beyond doubt, to any number that may seek domicile there in all coming time.

FACE OF THE COUNTRY.—The general face of the country is level, or but gently undulated. There are no mountains in Indiana, though the portion of the State south of White River is somewhat hilly and rugged. A ridge of low hills trends from Kentucky in a north-west direction, beyond the Ohio, White, and Wabash Rivers, producing

rapids in each of those streams. North of the White River and the Wabash, and comprising much of the larger portion of the State, the country is uninterrupted by precipitous ravines or rugged hills. Along the courses of the rivers are rich and extensive deposits of alluvium, frequently of several miles in width, constituting first-class land for tillage. A range of hills follows the general course of the Ohio River, producing upon the south-western border of the State a broken and rocky region for a limited extent. In the northern portion of the State the land is burdened with a profusion of walnut, oak, beech, maple, buckeye and other descriptions of valuable timber, interspersed occasionally with prairie and "barrens," or oak openings of the richest quality. In the vicinity of Lake Michigan are some sterile sand-hills, rising sometimes to an altitude of near 200 feet, between which and the Lake is a region clothed with a growth of pine. The general inclination of the surface of the country is to the south, as indicated by the streams seeking that direction, and paying their tribute to the magnificent Ohio.

MINERALS.—There are in the limits of the State extensive deposits of bituminous coal, estimated to be capable of yielding 50,000,000 bushels to the square acre. One of these beds extends from near the Ohio River, in Perry County, in a north-westerly direction, 150 miles, into Vermillion County. Taylor estimates the area of the coal field of Indiana at 7,700 square miles. As early as 1854 it was said that a coal-bed, giving great promise of richness, underlay the town of Evansville. Indiana also contains iron, some copper, marble, lime, freestone, gypsum, and material for the manufacture of grind-stones.

RIVERS, LAKES, ETC.—Lake Michigan is a boundary of the State for about 40 miles on the north-west, opening facilities for trade by the great lakes. The Ohio River forms the entire southern boundary of the State, and gives facility to the commerce of the Ohio and Mississippi Rivers. The Wabash is the largest river, having its course mainly within the State, and, with its tributaries, draining three-fourths of its surface. It rises in Mercer County, Ohio, and flowing in a north-western direction to Huntington (Indiana), thence westwardly to Carroll County, whence it takes a south-westward direction, passing Lafayette, until it approaches within 10 miles of the western boundary of the State; here it turns southward, passing Covington and Terre Haute, and forms the boundary between Indiana and Illinois, a few miles below the latter town, and more than 100 miles from where it flows into the Ohio. It is navigable by steamboats, at high water, for more than 400 miles. White River, a principal tributary of the Wabash, rises in two branches in the eastern part of the State, flows south-west, and the two branches unite about 30 miles from the confluence with the Wabash. The principal branch of the White River (the West Fork), is navigable, in times of high water, to Indianapolis, 140 miles from its mouth. The Maumee, formed by the St. Joseph and St. Mary, in the north-east of Indiana, passes off into Ohio, and discharges into Lake Erie, near Toledo. The Kankakee, one of the sources of the Illinois, drains the north-west portion of Indiana. The

upper St. Joseph enters the State from Michigan, and after a detour of about 30 miles in Indiana, returns to the former State.

CLIMATE, SOIL, AND PRODUCTIONS.—The climate of Indiana is in no way distinguished from that of the other North-western States, being somewhat milder than on the Atlantic coast, and more subject to capricious change. The severity of winter here is neither so great nor of so long duration as there. Snow does not fall in so great quantities, nor lay so long, though in this respect, as in that of temperature, there is a manifest distinction between the northern and southern extremities of the State. The earlier species of fruit, blossoming in March, are liable to injury from late frosts. The soil generally is good, and much of it highly fertile. The richest and most durable lands are found in the river bottoms, where alluvium is abundant. This is especially the case in the valley of the Wabash, above Terre Haute, and in portions of the valley of the Ohio River. The region between principal streams is slightly elevated, and though less productive than the river bottoms, is, nevertheless, of a good quality, affording a rich return for the industry bestowed upon it. There is very little land in Indiana not susceptible of successful cultivation; and that small portion which now, from its marshy character, is deemed least desirable, will, doubtless, when the requirements of a more dense population shall have applied to it improved systems of drainage and culture, prove the most prolific and valuable lands in the State. In the production of the staple of corn, Indiana already ranks as the fourth State of the Union. It also produces large quantities of wheat, oats, potatoes, hay, fruit, butter, and live stock, besides considerable quantities of rye, barley, buckwheat, wool, tobacco, cheese, flax, and the other productions of the farm. In 1850 there were in the State 5,046,543 acres of improved land, distributed among 98,396 farms, averaging near 50 acres of improvement to each farm. Since that time most of the public improvements in the State have been accomplished, giving additional impetus to private enterprise, resulting in vastly augmented growth and improvement of farms. The following comparative statement exhibits the ratio of progression and value in a single decade:

ACRES IMPROVED LAND.	VALUE.	ACRES UNIMPROVED.	VALUE FARM IMPLEMENTS.
1850.....5,046,543	\$136,385,178	7,746,879	\$3,704,444
1860.....8,161,717	344,902,776	8,164,059	10,420,826
Value of live stock in 1850,.....	\$22,478,555.	In 1860,...	\$50,116,964.
Bushels of wheat produced in 1850,.....	6,214,458.	In 1860,...	15,219,120.
Bushels of Indian corn produced in 1850,	52,964,363.	In 1860,...	69,641,591.
Butter, pounds produced in 1850,.....	12,881,585.	In 1860,...	17,984,767.
Wine, gallons produced in 1850,.....	14,056.	In 1860,...	88,275.
Assessed value of real estate in 1860,.....	\$291,829,992		
Assessed value of personal estate in 1860,.....	119,212,432—		\$411,142,424.

CURIOSITIES AND ATTRACTIONS.—There are a number of subterranean caves in Indiana. The Wyandot Cave, in Crawford County, near Corydon, approximates in extent and interest to the famous Mammoth

Cave, in Kentucky. Previous to 1850, this cave had been explored to the extent of three miles, and in that year new galleries were discovered, more extensive than the old, and abounding in stalactites and other calcareous concretions, some of great size and splendor. Epsom Salts Cave, on the Big Blue River, is in the side of a hill 400 feet high. About 2,500 feet from the entrance is a white column, 15 feet in diameter, 30 in height, regularly fluted, and surrounded by smaller and similarly formed columns. The earth of the floor yields Epsom salts, niter, albuminous earth, and gypsum. Within is a rude painting of an Indian upon the rock. There are numerous mounds and tumuli similar to those found in Ohio, in various parts of the State.

FOREST TREES.—The principal forest trees indigenous to Indiana are the various species of oak, walnut, ash, poplar, sugar-maple, hickory, elm, cherry, buckeye, beech, and some locust, sycamore, cotton-wood, mulberry, and hackberry. The fruits common to the latitude thrive in Indiana.

POPULATION.—From its early beginning, the population of Indiana has been steadily and healthfully progressive. In 1800 there were in the territory 4,875 inhabitants; in 1810, 24,570; in 1820, 147,178; in 1830, 343,031; in 1840, 685,866; in 1850, 988,393; in 1860, 1,350,428; and in 1866, 1,700,000. By the eighth national census (1860) the population of Indiana is classified as follows: White males, 693,469; white females, 645,531; colored males, 5,791; colored females, 5,637; aggregate, 1,350,428. At the election of President in 1864, there were polled in Indiana 280,705 votes. There are in the State 1,035 insane persons, 907 idiots, 691 deaf mutes, and 530 blind. These are generously provided for by the State. The number of deaths in the State during the year ended May 31, 1860, was, of males, 7,841; of females, 7,364—total, 15,205. Less than half of the entire population were born in the State; the balance immigrated, in most part, from other States, and the remainder from various parts of Europe. Of the population, 148,806 were engaged in agriculture, 20,590 in manufactures, 3,076 in commerce, 2,257 in the learned professions, 627 in internal navigation, 233 in mining, and 89 in oceanic navigation.

MANUFACTURES.—Agriculture is of necessity by far the leading pursuit by the people of Indiana. Nevertheless, where opportunity offers and enterprise invites, they are not wholly regardless of other interests. In 1860 there were in the State 5,010 manufacturing establishments, giving employment to 20,755 persons; consuming \$26,613,038 worth of raw material, and producing goods valued at \$41,840,586. The State affords great natural facilities for manufacturing, in the abundance of water-power and cheapness of mineral coal, which will be embraced and improved so fast as the progress of population and the accretion of capital shall present the incentive. So early as 1850, about \$172,000 was invested in forges, furnaces, etc., for the making of iron.

INTERNAL IMPROVEMENTS.—Though comparatively a young State, just being redeemed from primeval wilderness, Indiana has fairly placed herself in the van in the matter of improving her facilities for internal communication. So rapid has been her progress in this re-

spot, that it is difficult to fix, with even proximate accuracy, her true status at any given period. What may be statistically correct for one year, her rapid strides render obsolete and unreliable for the next. The first efforts put forth by the State to improve the means of intercommunication were given to the construction of canals—the Wabash and Erie Canal, extending from Evansville, on the Ohio River, to the Ohio State line, near Defiance, thence in Ohio to Toledo. This canal is 379 miles in length, mostly in Indiana. The Whitewater Canal, from Lawrenceburg, on the Ohio River, to Cambridge City, is 74 miles long. But canals, as a system of internal improvement, have been superseded and set aside by the more modern and fast-going railway; and Indiana soon conformed her policy to the prevailing idea, and while she has plunged ahead on the new theory, her canals, in a great measure, have fallen into neglect. The following table gives the various lines, with the number of miles each, in operation, and cost of construction and equipment, in 1860:

ROAD.	NO. MILES.	COST.
Chicago and Cincinnati,.....	61.00	\$1,250,000
Cincinnati and Chicago,	108.00	2,080,433
Cincinnati, Peru, and Chicago,.....	29.18	1,161,209
Evansville and Crawfordville,.....	182.00	2,465,792
Indiana Central,.....	72.40	2,233,361
Indianapolis and Cincinnati (with extension,).....	109.80	3,457,108
Indianapolis, Pittsburgh, and Cleveland,.....	82.77	1,902,693
Jeffersonville,.....	78.00	2,182,004
Joliet and North Indiana (in Indiana,).....	45.00	390,958
Knightstown and Shelbyville,.....	27.00	270,000
Lafayette and Indianapolis,.....	64.00	1,856,287
Louisville, New Albany, and Chicago,.....	288.00	7,029,494
Madison and Indianapolis (with branches,).....	185.00	2,667,704
Peru and Indianapolis,.....	74.00	2,371,564
Shelbyville and Lateral,.....	16.00	160,000
Rushville and Shelbyville,.....	20.00	320,000
Terre Haute and Richmond,.....	73.00	1,611,450
Union Track and Depot,.....	8.64	265,083
Michigan Central, from Michigan,.....	52.00	2,402,008
Michigan Southern, from Michigan,.....	185.00	5,951,820
Ohio and Mississippi, from Ohio,.....	173.30	16,794,417
Pittsburgh, Ft. Wayne, and Chicago, from Penn.....	155.00	5,794,879
Toledo, Wabash, and Western, from Ohio,.....	172.00	5,676,344
Total in Indiana,.....	2,125.90	\$69,518,194

COMMERCE.—The interior position of Indiana precludes her people from engaging in foreign commerce. But what with the lake on her north-west, the Ohio River on her entire south, and the Wabash on her west, together with the very ample artificial channels of trade and commerce provided by themselves, the people of Indiana possess the advantages of an option of a Northern or a Southern market for their products, and keep up a lively trade by lake and river with the principal Eastern cities, as well as with various points in the valleys of the Ohio and the Mississippi, though in vessels chiefly owned by citizens of other States. The tonnage of Evansville, in 1863, was 2,495, and that of

New Albany, in 1853, was 3,843. The principal objects of export are cattle, hogs, and other live stock, pork, beef, lard, corn, wheat, wool, etc. More than 600,000 hogs were packed in the State in a single year.

EDUCATION.—Indiana has a common school fund, which Governor Morton, in his message of January, 1867, estimates at \$7,611,337, "and is," he says, "I believe, larger than the school fund of any other State." This fund is derived in part from Section 16 of each surveyed township in the State, dedicated by the General Government, (even before the territorial organization, and while the region was an unbroken forest,) to the purposes of popular education, partly from the "surplus revenue," collected by the General Government and distributed among the States, partly from the proceeds of saline land, and from the taxation of banks. The fund is constantly and rapidly accumulating from fines, forfeitures, and the profits of the sinking fund.

In 1860 there were 17 colleges in the State, with an aggregate of 2,460 students, and with an annual income of \$82,450. There were 6,563 public schools, with 293,089 pupils, and an annual income of \$686,188, of which \$328,854 is derived from taxation, and \$314,096 from the public fund, and \$4,070 from endowments. The Constitution provides for the election by the people of a Superintendent of Public Schools, to hold his office for two years. In his message above quoted, Governor Morton says: "While our school system is far from being what it ought to be, yet it is being gradually and substantially improved. The standard for qualification of teaching has been elevated, and teaching, as a science, is far better understood than formerly." The lack of qualified teachers, and the fact that the schools have been kept open for too brief periods, he enumerates as the two great obstacles to success heretofore, and he anticipates the early removal of these.

GOVERNMENT, FINANCES, ETC.—The Governor and Lieutenant Governor are elected by the people, for a term of three years. The Governor receives a salary of \$1,500, and is eligible to election only once in every period of six years. The Lieutenant Governor is, *ex officio*, President of the Senate, and receives \$3 per diem during the sessions of the Legislature. The Senate consists of 50 members, and the House of Representatives of 100, both elected by the people—the former for four, the latter for one year. The Secretary of State, Auditor, Superintendent of Public Schools, and Treasurer are severally chosen for two years. The Judiciary consists of a Supreme Court, composed of not less than three nor more than five Judges, elected by the people for six years, and of thirteen Circuit Courts, presided over by Judges chosen by the people of each circuit for six years. The Judges of the Supreme Court receive each \$1,300 per annum. Justices of the Peace are chosen by the people of the several townships for four years. Any voter of good moral character may practice law, and any white male 21 years of age, born in the United States, (or foreign-born, with the required qualifications,) may vote after a residence in the State of six months. Indiana is entitled, under the eighth census, to 11 members of the National House of Representatives, and 13 members

of the Presidential Electoral College. The first presidential election in which Indiana participated was that of 1817, when James Monroe was elected, when she cast three votes, Jesse L. Holman, Thomas H. Blake, and Joseph Bartholomew being her electors.

The public debt of the State, on the 1st of January, 1867, was \$5,396,512, exclusive of certain internal improvement bonds, amounting to \$353,000, on which, though not expressly repudiated, the State has made no effort to pay interest or principal for more than twenty-five years. With a sinking fund yielding \$1,000,000 per annum, this indebtedness will very soon be absorbed.

CIVIL DIVISIONS.—The State is divided into 92 counties. The following table furnishes the names of the counties, the county towns, and population as per Eighth Census of the United States, 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Adams,	Decatur,	9,252	Jennings,	Vernon,	14,749
Allen,	Fort Wayne,	29,328	Johnson,	Franklin,	14,854
Bartholomew,	Columbus,	17,865	Knox,	Vincennes,	16,056
Benton,	Oxford,	2,809	Kosciusco,	Warsaw,	17,418
Blackford,	Blackford C. H.,	4,122	La Grange,	La Grange,	11,366
Boone,	Lebanon,	16,758	Lake,	Crown Point,	9,145
Brown,	Nashville,	6,507	Laporte,	Laporte,	22,919
Carroll,	Delphi,	18,489	Lawrence,	Bedford,	18,692
Cass,	Logansport,	16,848	Madison,	Anderson,	16,518
Clark,	Charleston,	20,502	Marion,	Indianapolis,	89,855
Clay,	Bowling Green,	12,161	Marshall,	Plymouth,	12,722
Clinton,	Frankfort,	14,505	Martin,	Dover Hill,	8,975
Crawford,	Leavenworth,	8,226	Miami,	Peru,	16,851
Davies,	Washington,	18,328	Monroe,	Bloomington,	12,847
Dearborn,	Lawrenceburg,	24,406	Montgomery,	Crawfordsville,	20,888
Decatur,	Greensburg,	17,294	Morgan,	Martinaville,	16,110
De Kalb,	Auburn,	18,880	Newton,		2,860
Delaware,	Muncie,	15,758	Noble,	Albion,	14,915
Dubois,	Jasper,	10,394	Ohio,	Rising Sun,	5,462
Elkhart,	Goshen,	20,986	Orange,	Paoli,	12,076
Fayette,	Connersville,	10,225	Owen,	Spencer,	14,376
Floyd,	New Albany,	20,188	Parke,	Rockville,	15,538
Fountain,	Covington,	15,566	Perry,	Rome,	11,847
Franklin,	Brookville,	19,549	Pike,	Petersburg,	10,078
Fulton,	Rochester,	9,422	Porter,	Valparaiso,	10,813
Gibson,	Princeton,	14,582	Posey,	Mount Vernon,	16,167
Grant,	Marion,	15,797	Pulaski,	Winamac,	5,711
Greene,	Bloomfield,	16,041	Putnam,	Green Castle,	20,681
Hamilton,	Noblesville,	17,810	Randolph,	Winchester,	18,997
Hancock,	Greenfield,	12,802	Ripley,	Versailles,	19,054
Harrison,	Corydon,	18,521	Rush,	Rushville,	16,193
Hendricks,	Danville,	16,958	St. Joseph,	South Bend,	18,455
Henry,	New Castle,	20,119	Scott,	Lexington,	7,303
Howard,	Kokomo,	12,524	Shelby,	Shelbyville,	19,569
Huntington,	Huntington,	14,867	Spencer,	Rockport,	14,566
Jackson,	Brownstown,	16,286	Stark,	Stark C. H.,	2,196
Jasper,	Rensselaer,	4,291	Steuben,	Angolia,	10,874
Jay,	Jay C. H.,	11,399	Sullivan,	Sullivan C. H.,	15,064
Jefferson,	Madison,	25,086	Switzerland,	Vevay,	12,698

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Tippecanoe,	Lafayette,	25,726	Warren,	Williamsport,	10,057
Tipton,	Tipton C. H.,	8,170	Warwick,	Booneville,	18,261
Union,	Liberty,	7,109	Washington,	Salem,	17,909
Vanderburg,	Evansville,	20,552	Wayne,	Centerville,	29,558
Vermillion,	Newport,	9,422	Wells,	Bluffton,	10,844
Vigo,	Terre Haute,	22,517	White,	Monticello,	8,258
Wabash,	Wabash,	17,547	Whiteley,	Whiteley C. H.,	10,780

RELIGIOUS DENOMINATIONS.—Of 2,933 churches in the State, in 1860, 475 were Baptist, 27 Tunkard Baptist, 347 Christian, 11 Congregational, 29 Episcopal, 93 Friends, 9 German Reformed, 150 Lutheran, 1,256 Methodist, 275 Presbyterian, 27 Cumberland Presbyterian, 8 Reformed Presbyterian, 18 United Presbyterian, 127 Roman Catholic, 44 Unionist, 28 Universalist, and 9 minor sects—affording one church to every 460 persons. The church property was valued at \$4,065,274.

CITIES AND TOWNS.—The following are the principal cities and towns of the State, and their respective population in 1860, namely:

Indianapolis,.....	18,888	New Albany,.....	17,647
Fort Wayne,.....	10,868	La Fayette,.....	9,887
Madison,.....	14,180	Richmond,	6,608
Terre Haute,.....		Evansville,.....	12,208

Indianapolis, the most populous city, and capital of the State, and seat of justice of Marion County, is centrally located, and keeps pace with the rapid advance of the State in wealth, population, and improvement. The numerous railways radiating in all directions from that point, place her in immediate connection with Chicago, Detroit, Cleveland, Columbus, and Pittsburgh, on the north and east, and with Madison, New Albany, Evansville, and St. Louis, on the south and west, constituting the place one of the principal railway centers in the country. It is situate in an extensive and fertile plane, surrounded for several miles by well-stocked and well-cultivated farms. When, in 1820, this spot was selected for the capital of the State, the whole region for forty miles in every direction was covered with a dense forest. On the first of January, 1825, the public offices and archives of the State were removed from Corydon, and the seat of government permanently fixed here. The streets generally cross each other at right angles, except four diagonal streets, or, avenues, which converge to a circular area in the center of the town plat. The principal public buildings are on Washington street, which is 120 feet wide. Several of the other streets are 90 feet wide. The State-house, erected at an expense of \$60,000, was in its day an elegant structure of the Grecian order of architecture, surmounted by a dome, and having 10 Doric columns on each front. Its dimensions are 180 feet long by 80 wide. Among the other public buildings are an Executive Mansion, Court-house, a large Masonic Hall, the Bates House, (the largest hotel in the State,) and several other hotels, two market-houses, and the station-house of the Madison and

Indianapolis Railway, 350 feet long by 56 wide, and some 30 churches. A State Lunatic Asylum was established here in 1848, and has rising of 200 patients. The Indiana Central Medical College, founded in 1849, is also located here. Great attention is paid to education, and the public schools are in a flourishing condition. Several banks and seven or eight newspapers are located here, three of the latter dailies. The city contains several iron foundries, flouring-mills, and manufactories of steam engines, paper, window-sash, and other articles. Population in 1840, 2,692; in 1850, 8,090; in 1860, 18,388.

Madison is a flourishing city, river port, and seat of justice of Jefferson County, on the Ohio River, 90 miles below Cincinnati, 44 miles above Louisville, and 86 miles south-south-east of Indianapolis, latitude $38^{\circ} 46'$ north, longitude $85^{\circ} 21'$ west. It is advantageously situated for trade, and is equal if not superior to any town of the State in wealth and importance. Steamboats make regular trips between this port and other towns of the Ohio and Mississippi Valleys. Navigation is usually open during the winter season, or if obstructed at all, but for a very brief period only. Here is the south terminus of the Madison and Indianapolis Railway, completed in 1848, and doing a large business. The city is beautifully situated in a valley near three miles long, which is flanked on the north by steep and rugged hills four hundred feet above the level of the river. The plane on which the town is situate is elevated 30 or 40 feet above high water. Madison is well built, containing a larger proportion of brick houses than is usual in Indiana towns. It has a court-house, jail, two market-houses, two large public schools, a bank, and about twenty churches. There are five newspapers published here. The streets are mostly paved and lighted with gas. Manufactures of cotton, wool, iron, machinery, and oil, are carried on here pretty extensively, giving employment to numerous laborers and a large amount of capital. There are, also, several very extensive establishments for packing pork. The town was first settled in 1808. Population in 1840, 3,798; in 1850, (including North Madison village,) 8,681; in 1860, 14,130.

New Albany, the capital of Floyd County, lies on the right bank of the Ohio River, 2 miles below the falls, 3 miles below Louisville, and 136 below Cincinnati. Latitude $38^{\circ} 18'$ north, longitude $85^{\circ} 51'$ west. It is the southern terminus of the New Albany and Salem Railway, which extends from Michigan City, 287 miles. It is remarkable for its rapid growth and active trade; in fact, it may be considered the most commercial town in the State except Madison, and is nearly the equal of that in population. Steamboats arrive and depart daily to all points on the Ohio and Mississippi. The streets are broad and straight, and furnished with pleasant sidewalks. The town contains 16 churches, a collegiate institute, a Presbyterian theological seminary, 3 banks, and 3 printing-offices. Steamboat building is carried on here more extensively than any other point on the Ohio River, scarcely excepting Cincinnati. There are, also, manufactories of iron, brass, bagging, etc. A plank road, twenty miles long, extends from New Albany to Corydon. The town was laid out in 1813. More than 2,000 buildings, of various de-

scriptions, were erected here in the year 1866. Population in 1840, 4,226; in 1850, 8,151; in 1860, about 14,000, and in 1866, 17,647.

Fort Wayne, a flourishing town, capital of Allen County, is situate at the confluence of the St. Joseph and St. Mary Rivers, which form the Maumee, and on the Wabash and Erie Canal, 122 miles east-north-east of La Fayette, and 112 miles north-east of Indianapolis. Fort Wayne is a town of rapid growth, and is one of the most important places in the State. It is a point on the Pittsburgh, Fort Wayne, and Chicago Railway; and through it has direct connection with Philadelphia and other eastern cities, and with Chicago, and the rapidly-growing towns throughout the great North-west. Several plank roads lead to this place from different places in Ohio. It has a number of churches, banks, a Methodist female college, and two newspapers. The surrounding region is highly productive, and a large portion of the land is under cultivation. On the site of the town was the old "Twight-wee village" of the Miami tribe of Indians. Here Fort Wayne was erected in 1794, by order of Gen. Anthony Wayne, which continued to be a military post until 1819. The Miamis were removed beyond the Mississippi in 1841. Population in 1853 estimated at 6,500; in 1866, at 10,368.

La Fayette, capital of Tippecanoe County, lies on the left bank of the Wabash River, and on the Wabash and Erie Canal, 66 miles north-west of Indianapolis, and 123 miles south-east from Chicago, latitude $40^{\circ} 25'$ north, longitude $88^{\circ} 40'$ west. The town is pleasantly situated on gradually rising grounds, affording a delightful view of the river and neighboring hills. It is among the largest towns on the line of the canal, and among the foremost in the State in point of population. It has direct communication with Indianapolis and Crawfordsville. Its railway and canal facilities, together with the great fertility of the surrounding country, render it a place of active trade, and a principal grain market in the State. It contains a court-house, four banks, a seminary, and about 14 churches, some of which are large and handsome edifices. It has also several paper-mills, iron foundries, and large pork-packing establishments. The surrounding region consists of the richest prairie land, interspersed with oak openings, sometimes miscalled "barrens." Population in 1846, 1,700; in 1850, 6,129; in 1866, about 12,000.

HISTORY.—The first white settlement within the limits of the present State of Indiana was made by a French colony, at Vincennes, in the year 1732, some thirty years before the settlement of St. Louis, and under similar auspices. The town possesses more historical interest than any other town in the State. Its first settlers were Canadian French; and for several generations they were the sole tenants of those vast solitudes, except the aboriginal savage tribes by whom they were surrounded, and with whom they maintained friendly terms. Vincennes is the capital of Knox County, on the left bank of the Wabash, 120 miles south-west of Indianapolis, and 56 miles north of Evansville. The French settlers maintained here their solitary isolation, with little accession of their numbers, till long after the close of the American Revolution. Like other French settlements, this was nearly stationary as to numbers, until the arrival of the Anglo-Saxons in the vicinity.

They enjoyed life with the characteristic cheerfulness of their race, mingling with their savage neighbors on terms of the utmost amity, sometimes forming with them matrimonial alliances. Several of the present inhabitants are descended from the colonists. On the erection of Ohio as a separate State, and her admission into the Union in 1802, the remainder of the North-west Territory, embracing the present States of Indiana and Illinois, was reorganized, which organization was maintained until 1816, when Indiana was received into the family of States. While in the territorial condition, in the year 1811, the Shawnee Indians, incited, it was alleged, by the British Government or its agencies, and led on by the great chief Tecumseh, and his brother the Prophet, attacked the settlements of the whites, committing great depredations and slaughter. General William Henry Harrison was sent to hold the savages in check and protect the feeble settlements. The Indians continuing their hostile demonstrations, were met by General Harrison at Tippecanoe, and, after a sharp conflict, were completely routed. Two hundred of General Harrison's troops fell in the engagement.

ILLINOIS.

THE State of Illinois derives its name from the aboriginal inhabitants of the region. In their own dialect the term was *Illini*, and signified a *perfect and accomplished man*. This name they applied to the great lake on the north-east of the State, and to the principal river that waters the interior of the State. Priding themselves on the completeness and elegance of their physical stature, they arrogated to their tribe the name of ILLINI—*perfectly formed men*, and applied it to their great water—the *Lake of Perfect Men*. French interlopers corrupted the name to *Illinois*, and left to their English successors to change the name of the lake to "Michigan."

The State of Illinois was the third formed from that vast region formerly spoken of as "The North-Western Territory," and constituted the twenty-first State of the American Union. It is bounded on the north by the State of Wisconsin; on the east by Lake Michigan and the State of Indiana, from which it is in part separated by the Wabash River; on the south by the Ohio River, which separates it from Kentucky; and on the south-west and west by the Mississippi River, which separates it from the States of Missouri and Iowa. It is situated between 37° and 42° 30' north latitude, and between 87° 30' and 91° 40' west longitude; being about 380 miles in length from north to south, and about 200 miles in its greatest, and 140 miles in its average breadth, including an area of 55,409 square miles, or 35,459,200 acres. There being almost none but arable land within these boundaries, we

may readily infer the ample capacity of the State to subsist a very dense and numerous population.

FACE OF THE COUNTRY.—Illinois is generally a table land, elevated from 350 to 800 feet above the level of the Gulf of Mexico, with a general inclination of surface from north to south, as indicated by the course of its rivers. As a whole, it may be denominated level, though there are prominent bluffs along the Illinois River, and yet higher ones on the margin of the Mississippi. There is in the southern part of the State an inconsiderable tract of hilly land, and in the north-west considerable broken country. There is a large amount of prairie land in the State, the prairies varying in extent, some being quite small, while others are vast in dimensions. Among the latter is the Grand Prairie, extending full half the length of the State, in a north-easterly and south-westwardly direction, and from five to twenty miles in width. The Grand Prairie embraces perhaps the highest land between the Mississippi and Wabash Rivers. The prairie is skirted with a belt of timber land, and all along its borders are settlements, attracted by the double advantage of grounds already prepared for the plow, and timber convenient at hand for buildings, fencing, and fuel. The prairies being natural meadows, are, of course, void of timber, except rarely occasional groups of a few isolated trees. The soil is well adapted to the growth of timber, and, when protected from fires, is soon covered with a vigorous growth of young trees. The prairies, though frequently nearly level, are generally handsomely undulated and well drained, and in the proper seasons exquisitely decked with a profusion of beautiful indigenous flowers, of such variety and richness of hue that can not but charm the eye of the beholder.

RIVERS AND LAKES.—The Mississippi River forms the entire western and the Ohio River the entire southern boundary of the State; and these, with Lake Michigan on the north-west, afford easy access, for commercial purposes, to the principal cities of the East, and in the great valleys of the South-west. The rivers of the State have generally worn their channels through the table-land or plane which they drain, presenting, occasionally, precipitous bluffs, sometimes close to their brink, at other times leaving a broad skirt of alluvial bottom between the river and the table-land. The Illinois River is formed in the north-eastern part of the State, by the confluence of the Kankakee, from Indiana, and the Des Plaines, from Wisconsin, at Dresden, Grundy County. Crossing the middle of the State, after a course of 500 miles from its remotest source, it empties itself into the Mississippi, about 40 miles above St. Louis. It is navigable for steamboats 250 miles. Rock River takes its rise in Wisconsin, and the Kaskaskia near the middle of Illinois, and both flow south-westwardly into the Mississippi. The Sangamon pays its tribute to the Illinois, 80 miles above the mouth of the latter, after a westwardly course of about 200 miles. The Kankakee, Des Plaines, Sangamon, and Fox Rivers are the principal sources of the Illinois, besides which it has numerous inconsiderable tributaries. The Wabash, which receives the waters draining the eastern part of the State, forms also its eastern boundary

for more than 100 miles. Lake Michigan bounds the State for 60 miles on the north-east. Lake Peoria is an expansion of the Illinois River, commencing at Chillicothe, and extending in a southerly direction some 22 miles. It has very little current, and is abundantly supplied with choice fish. The water is beautifully transparent; the lake is from one to two miles in width. The city of Peoria is on its western bank, near the southern terminus. Lake Pishtaka, in the north-east, is the only other lake of any importance in the State. The current of the Illinois River is sluggish, and, in times of freshet, the waters of the Mississippi back up into its channel for the distance of 70 miles. Rock River has obstructions near its mouth; but, notwithstanding, both it and the Kaskaskia, as well as the Sangamon and the Spoon Rivers, are, in times of high water, navigable by steamboats for a considerable distance. The Wabash is navigable by steamboats above the point where it first touches the State and commences to be its western boundary. The rivers flowing into the Wabash, from Illinois, are the Vermillion, Embarras (pronounced Embraw), and Little Wabash, having courses of 100 to 150 miles each. The Embarras is navigable for keel-boats.

MINERALS.—A large district of the lead-producing region is in the limits of Illinois. Galena, in the north-west corner of the State, owes its origin and growth, as well as its name, to the production of and traffic in this mineral. More than 13,000,000 pounds (including that from Wisconsin) have been smelted in a single year. Bituminous coal occurs in almost every county, and frequently crops out without excavation. Vast beds of it are in the bluffs adjacent to the "American Bottom." Anthracite coal is reported to have been discovered in Jackson County. According to Taylor, the coal-fields of Illinois extend over an area of 44,000 square miles. Copper abounds in the north part of the State, on Plum Creek, and on the Peckatonica River. It has also been found in Jackson and Monroe Counties. Iron exists in the south part, and is said to be abundant in the north. Lime, zinc, marble of fine quality, freestone, gypsum, and other minerals, are found in different localities, and there have been (rather apocryphal) reports of silver deposits in St. Clair County. There are saline springs in Gallatin, Jackson, and Vermillion Counties, leased by the State. Medicinal springs, chiefly sulphur and chalybeate, exist in various parts of the State; one, especially, in Jefferson County, is much resorted to. One in the southern part of the State is strongly impregnated with Epsom salts. Others, of medicinal properties, are between Ottawa and Peru.

CURIOSITIES AND ATTRACTIONS.—Though Illinois, in her physical outline, presents to the traveler but few very bold and striking features, she is by no means void of objects of interest to the student of nature. Her expanded prairies, decked in their holiday array that outvies "Solomon in all his glory," besides their landscape beauty, inspire a feeling of sublimity, from their vastness, like unto that experienced by a first view of old ocean; and perhaps no natural object in our country—not even excepting the classic Niagara—would more fix the admiration

of a visitor from the Old World, than a view of the Grand Prairie in its summer attire. The occasional bluffs along the river banks produce emotions, though inferior in degree, like those from viewing mountain scenery. The most remarkable of these are on the Mississippi, some of which are from 300 to 400 feet high. Fountain Bluff, in Jackson County, is of oval shape, six miles in circumference, and 300 feet high. The summit is perforated with numerous sink-holes. Starved Rock and Lovers' Leap are eminences on the banks of the Illinois River. The former is a perpendicular mass of limestone and sandstone, eight miles below Ottawa, rising to 150 feet above the level of the river. It derives its name from the fact that a band of Illinois Indians, being surrounded by the Pottawatomes, with whom they were on unfriendly terms, took refuge here, and all perished—not so much from starvation as from thirst. Lovers' Leap is a ledge of precipitous rocks, some distance above Starved Rock. On the opposite side of the river, and nearly opposite to Lovers' Leap, is Buffalo Rock, 100 feet high, precipitous toward the river, but sloping on the inland side. Hither the Indians formerly found savage diversion by driving herds of buffalo up the acclivity, and, by shouts and hideous noises, frightening the animals, causing them to crowd each other over the precipice. A cave in Hardin County, on the bank of the Ohio River, presents, on approaching it, the appearance of a vast mass of disintegrated stones, resembling castellated ruins; others jut out in a vast variety of irregular forms. The entrance of the cave, which is little above high water in the river, is a semicircle, 80 feet in width and 25 feet high. The cave ascends gradually from the entrance to the extreme limit of 180 feet back from the mouth. A small aperture leads to a second cave, whose dimensions are not ascertained. This second cave was in 1797 the abode of a band of robbers, who perpetrated their crimes upon unwary boatmen and emigrants. It has since been the resort of other bands of robbers. Miners, in sinking their shafts in the lead regions, often penetrate caverns at the depth of from 40 to 100 feet, by which are developed brilliant specimens of stalactites, stalagmites, and other varieties of calcareous spar, and resemblances of leaves, birds, animals, etc. In some caves sulphate of lime is found, in different crystal forms. Near Cahokia is a mound 2,000 feet in circumference, and 90 feet elevation. The prairies and rivers of Illinois present great incentives to sportsmen to shoot prairie-hens (a species of pheasant or grouse), and take trout and other fish from the clear waters of the northern rivers.

CLIMATE, SOIL, AND PRODUCTIONS.—Extending through more than 5° of latitude, Illinois has considerable variety of climate. Though somewhat milder than in the same parallel in the Atlantic States, there is great irregularity in the seasons. There seldom falls six inches of snow at one time; nor does it often lie more than a very few days. But at distant intervals the rivers have been known to remain frozen over, and the snow to lay for several consecutive weeks. The summers are hot, but mitigated by the refreshing breezes on the prairies. Peach-trees blossom from March 25th to April 20th in dif-

ferent years, and apple-trees from the 1st of April to the 3d of May. The earliest frost for fifteen years was on the 17th of September; sometimes they are as late as the last of October. Cattle are often unhoused during the entire winter.

The agricultural capabilities of Illinois are unsurpassed by those of any sister State in the American Union, if indeed by any portion of the earth's surface of equal extent. In some of her river bottoms the alluvium is twenty-five feet deep; and the upland prairies are but little inferior in productive fertility. The great "American Bottom," lying on the Mississippi, between the mouths of the Kaskaskia and Missouri Rivers, is of exceeding fertility, and has been cultivated for 100 years without perceptible deterioration. This bottom is about 80 miles in length, and covers an area of about 288,000 acres. On the margin of the river is a strip, two or three miles in breadth, of heavy timber and dense undergrowth. The remainder is mostly prairie to the eastern limit of the bottom, where it terminates at a chain of sandy or rocky bluffs, from 50 to 200 feet in height. For lack of proper drainage, which it has not yet received, this fertile region is exposed to miasmatic diseases, for which reason it is held in less esteem than otherwise it would be. The Rock River country is another fertile region; and of the same character are the regions about the Sangamon, Kaskaskia, Mauvaisterre, and other rivers. There is no considerable district in Illinois that is not fertile, but those enumerated are pre-eminently so, producing not unfrequently 40 bushels of wheat, or 100 of corn, to the acre. This is especially the case with the narrow river-bottoms. The prairies are peculiarly adapted to the raising of stock and the productions of the dairy. Illinois ranks among the foremost of the States of the Union in the amount of Indian corn produced; and the very first, if we take into the account the sparseness of her population and the number of acres in cultivation. The other agricultural staples are wheat, oats, potatoes, hay, butter, and cheese, besides large quantities of rye, wool, barley, buckwheat, some tobacco, sweet potatoes, wine, grass seeds, hemp, flax, silk, maple sugar, molasses, honey, orchard fruits, and other farm productions. Of indigenous fruits, there are the usual variety of berries, plums, grapes, crab-apples, wild cherries, persimmons, pawpaws, etc. Of orchard fruits, the apple and peach are most successfully cultivated, though pears and quinces are raised to a considerable extent. By the Report of the State Auditor, made to the Legislature on the 1st of December, 1866, it appears that in the year ending December, 1864,

The number of acres in cultivation in wheat, was.....	2,243,885
The number of acres in cultivation in corn, was.....	8,949,285
The number of acres in other farm products, was.....	1,350,484
Total number of acres in cultivation in 1864,.....	7,543,604

The value of real estate and personal property, according to the census of 1850, was \$156,265,606; by the census of 1860, it was \$874,860,282, being an increase in a single decade of \$715,595,276, or

of 457.93 per cent. The whole value of live stock in the State in 1860 was \$70,000,000; in 1865, \$123,772,554. Value of agricultural products of 1865 amounted to \$83,280,848. In the year ending June 1, 1865, there were produced 14,258,120 bushels of bituminous coal, valued at \$964,187. The number of coal mines worked in 1865, 380; products, 1,078,495 tons.

FOREST TREES.—Though very unequally distributed, the State of Illinois nevertheless produces an abundance of timber. The settlement and occupation of the country now rapidly going forward, will constantly diminish and ultimately overcome this inequality of distribution; while the facilities for transportation, resulting from the net-work of improvements reaching to every quarter of the State, greatly alleviate the force of its inconvenience. The bottom lands have a rich growth of black walnut, white walnut, ash, hackberry, elm, sugar-maple, honey-locust, buckeye, catalpa, sycamore, cotton-wood, pecan, hickory, and various species of oaks; and underwood of red-bud, pawpaw, grape-vine, eglantine, dogwood, spicebush, hazel, green briar, etc. On the uplands are valuable post-oak and other varieties of oak, hickory, black and white walnuts, linn, (or basswood,) cherry, blackjack, etc. White and yellow poplar in the southern part of the State, and cypress on the Ohio river bottoms.

MANUFACTURES.—Illinois has not yet sufficiently developed her resources to be extensively occupied in manufactures, though she has ample facilities for prosecuting the various branches of mechanical industry, when a more ample population and increased wealth shall call for a diversion of labor and capital in that direction. The manufacturing interest is already keeping pace with the progress of population and general improvement, as shown by comparative statements. In 1850 the capital invested in iron founding was \$347,180; in 1860, \$605,428. The number of manufactories in the State, as shown by the United States census of 1860, was 4,268; while by the State census, taken in 1865, the number returned was but 3,500. While the value of the manufactured products in 1860 amounted to \$57,586,886, in 1865 their value was \$63,356,013. The value of flour and meal produced in 1850 was \$5,781,483; in 1860 it was \$18,104,804. Notwithstanding these flattering showings, it is nevertheless a fact that Illinois is, and for some years to come is destined to remain, the granary of the great North-west rather than its workshop.

INTERNAL IMPROVEMENTS.—In the year 1836, when, stimulated by the policy of the Federal Administration, the local banks throughout the country had greatly extended the volume of their circulation, and men ran riot in a spirit of speculative adventure, the State of Illinois projected an extravagant system of internal improvement. Various railway enterprises were inaugurated, only to be brought to a sudden dead halt by the insatiable revulsion that followed in the wake of that policy. The Illinois and Michigan Canal was the initial work of improvement then undertaken by the State, and it had the good fortune to escape the catastrophe which for the time overwhelmed the others. This important work was commenced in the year 1836, and was finished in 1848.

It is 100 miles long, extending from Chicago, on Lake Michigan, to Dresden, the head of steamboat navigation on the Illinois River. It is 60 feet wide at top, 36 at bottom, and 6 feet deep. There are 17 locks, each 110 feet long, and 18 feet wide, being of sufficient size to pass vessels of 120 tons burden. The entire cost of the work was \$6,600,000. Leaving Chicago, it passes the flourishing towns of La Salle, Utica, Ottawa, Marseilles, Morris, and reaches Dresden, forming a direct water communication from the great lakes of the North-west through the Illinois River to the Mississippi and the great South-west. Nor was the giant spirit of the rising State to be restrained by temporary difficulties. The people of Illinois, recuperating from the effects of a commercial embarrassment which had pervaded the whole country, rose "like a young lion, shaking the dewdrops from his mane," and addressed themselves manfully to the work of making the vast natural resources of their State available. A system of railways, more vast and magnificent than that projected in 1836, was vigorously entered upon in 1851, and pushed to a speedy and successful consummation. This was accomplished without cumbering the State with a burdensome public debt, while at the same time it secures to the public coffers a handsome revenue. The completion of that system places the advantages of convenient railway commerce and traffic within the reach of almost every county of the State, and places Chicago, the great commercial metropolis of the State, in immediaterail way connection with every principal city of the United States, except San Francisco; and already the snort of the iron horse is heard more than five hundred miles on its course for that destination! In 1850, there were in operation in the State 110½ miles of railway, costing for construction and equipment \$1,440,507; in 1860 there were 2,868 miles, costing \$104,944,561. It is difficult for the mind to grasp, from a simple recital, the magnitude of such a statement. The following table, giving the names of the several roads in operation in the State in 1860, the length of each in miles, and respective cost of construction and equipment, will present the matter in a more tangible form. The names of the roads will generally indicate the several termini. This table is derived from the United States Census, 1860:

ROADS.	MILEAGE.	COST.
Chicago, Alton, and St. Louis,	220.00	\$10,000,000
Chicago, Burlington, and Quincy,.....	188.00	7,468,926
Chicago and Milwaukee,.....	45.00	1,884,844
Chicago and North-western, (within Illinois,).....	66.00	3,810,814
Chicago and Rock Island,.....	181.50	6,913,554
Elgin and State Line.....	82.20	581,817
Galena and Chicago, (with branches,).....	261.25	9,852,481
Great Western, (with branches,).....	182.00	5,086,208
Illinois Central,.....	788.25	27,195,391
Illinois Coal,.....	4.00	100,000
Joliet and Chicago,.....	85.80	1,000,000
Logansport and Burlington,.....	171.00	5,000,000
Mound City,.....	8.00	60,000
Ohio and Mississippi,.....	148.00	4,870,686
Peoria and Bureau Valley,.....	46.60	2,106,000

ROADS.	MILEAGE.	COST.
Peoria and Oquanka.....	94.00	2,709,809
Quincy and Chicago.....	100.00	1,978,550
Quincy and Toledo.....	84.00	756,000
Rockford.....	28.00	560,000
Rock Island and Peoria.....	11.00	220,000
Sycamore and Cortlandt.....	5.00	75,000
Terre Haute, Alton, and St. Louis (with branches)...	208.80	8,865,252
Warsaw and Peoria.....	18.00	300,000
Joliet and Northern Indiana, from Indiana.....	30.00	781,950
Michigan Southern, from Michigan.....	12.00	386,064
Michigan Central, from Michigan.....	18.00	600,652
Pittsburgh, Ft. Wayne, and Chicago, from Peru.....	12.00	447,955
Racine and Mississippi, from Wisconsin.....	35.00	1,279,530
Total in Illinois.....	2,867.90	\$104,944,561

COMMERCE.—The State of Illinois is most favorably circumstanced as regards facilities for external commerce, being bounded on three sides by navigable rivers, affording the most ample and convenient means of communication with all parts of the Ohio and Mississippi Valleys; and on the remaining side by a great lake, affording like opportunity for commerce with the cities of the North and East. To these natural channels of commerce we may add the Illinois River, which is one of the very best of streams for navigation, and bisects the State near the center, in such way as to afford to the inhabitants the greatest possible amount of benefit. And when we superadd the numerous artificial channels of commerce and intercommunication, devised and executed by the enlightened enterprise of the people of the State, we conclude that few people can compare with them in these advantages. But the commerce of Illinois consists mainly of the removal of her immense agricultural products and live stock to the markets. Chicago and Cairo are her principal commercial marts. Pork in large quantities is annually packed at various points on the Illinois, Ohio, and Wabash Rivers, and on the different lines of railway; and lead is produced extensively at Galena. Lumber is an important item of exportation from Chicago.

EDUCATION.—Illinois is provided with very ample educational funds. When she laid aside her territorial relation and became a member of the Federal Union, by a compact with the General Government, in consideration of the State forbearing to tax the public land within her limits for a period of five years after their sale, section No. 16 of each surveyed township in the State, or its equivalent, was set apart for the support of common schools in the township. This would yield about 985,000 acres of land, any section of which, when improved, would constitute a magnificent manor. By another compact with the General Government, three per cent. of the amount received for the sale of public land in the State was also devoted to educational uses in the State, one-sixth for the support of colleges. And to these funds the Legislature wisely added the portion of surplus revenue allotted to Illinois by the General Government when a distribution of that fund was made. Besides the income from these sources, the State levies and collects annually a liberal tax. The biennial Report of the State Auditor, made on

the 31st December, 1866, to the Legislature, shows the following condition of the educational funds:

Amount surplus revenue credited to School Fund,.....	\$335,592 82	
Amount three per cent. fund credited to School Fund, 613,862 96		\$948,955 28
Amount three per cent. fund credited to College Fund,.....	156,618 22	
Amount three per cent. fund credited to Seminary Fund,.....	59,888 72	
Total amount School, College, and Seminary Funds,.....	\$1,165,407 22	

Two years interest on these funds, at six per cent., was paid by the State, as follows:

To Institution for Deaf and Dumb,.....	\$5,827 02
To the Normal University,.....	24,891 98
Distributed to the counties,.....	109,129 86
	<hr/> \$139,848 86

The amount of school tax collected by the State and distributed to the counties was, in 1861, \$693,000; in 1865, \$750,000. The number of school-houses built in 1866 was 612; whole number in the State, 9,753. The number of public schools 9,945. Whole number of scholars, 614,659; teachers, 17,279, of whom 10,454 were females. There are in the State six colleges, and a Normal University for the education of teachers.

RELIGIOUS DENOMINATIONS.—There are 1,223 church edifices in Illinois, of which Baptists owned 252; Christians, 69; Congregationalists, 46; Dutch Reformed, 2; Episcopalian, 27; True Church, 2; Friends 6; German Reformed, 2; Lutheran, 42; Methodist, 405; Moravian, 2; Presbyterian, 206; Roman Catholic, 59; Swedenborgian, 1; Tunker, 4; Union, 30; Unitarian, 4; Universalist, 7; and minor sects, 26—giving one church to each 700 inhabitants. Value of church property, \$1,482,185.

PERIODICALS.—There were published in Illinois, in 1860, two hundred and eighty-six newspapers, 259 of which were devoted to political topics, of which latter 23 were daily, one biweekly, 6 tri-weekly, 228 weekly, and 1 monthly; 11 were religious, 5 being weeklies and 6 monthlies; eight literary, viz., 3 weeklies and 5 monthlies; and 8 devoted to miscellaneous topics, viz., 1 biweekly, 2 weeklies, and 5 monthlies.

STATE INSTITUTIONS.—There are at Jacksonville a State Lunatic Asylum, a Deaf and Dumb Asylum, and an Asylum for the Blind; a State Penitentiary at Alton, and another at Joliet. The Deaf and Dumb Asylum has about 130 pupils, and is maintained at an expense of about \$25,000 per annum. In 1860 there were in the State 801 elinguid persons. There are 33 public libraries, with 35,982 volumes, and 4 college libraries, with 7,800 volumes.

POPULATION.—In the arrangement of States in the order of their area and population, according to the national census of 1860, Illinois is the 16th in area, the 4th in population, the 13th in population to

the square mile, the 9th in mean ratio, and the 6th in actual increase of population per square mile from 1850 to 1860. The aggregate population in 1860 was 1,711,951, of whom 7,628 were colored. Illinois first figures in the census tables of 1810, when she appears with a population of 11,501. Mark her astonishing progress! In 1820 her population had swollen to 55,162; in 1830, 157,444; in 1840, 476,183; in 1850, 851,470; In 1860, 1,711,951. And by the State census of 1865, she had

White males.....	1,095,111	
White females	1,083,059	
		2,124,170
Colored males.....	9,112	
Colored females.....	8,228	
		17,340
Aggregate population in 1865.....		2,141,510

And still her career is onward! What finite mind can grasp the ultimate goal of a people whose infantile career is marked by such giant strides of progress?

CIVIL DIVISIONS.—The State is divided into 102 counties. The following is an alphabetic list of the counties, with the names of their respective county towns and population, as per the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Adams,	Quincy,	41,828	Ford,		1,979
Alexander,	Thebes,	4,707	Franklin,	Benton,	9,392
Bond,	Greenville,	9,815	Fulton,	Lewiston,	23,338
Boone,	Belvidere,	11,678	Gallatin,	Shawneetown,	8,065
Brown,	Mt. Sterling,	9,988	Greene,	Carrollton,	16,092
Bureau,	Princeton,	26,426	Grundy,	Morris,	10,379
Calhoun,	Hardin,	5,144	Hamilton,	McLeansboro,	9,915
Carroll,	Mt. Carroll,	11,788	Hancock,	Carthage,	29,061
Cass,	Beardstown,	11,825	Hardin,	Carthage,	3,759
Champaign,	Urbana,	14,629	Henderson,	Oquawka,	9,501
Christian,	Taylorsville,	10,492	Henry,	Cambridge,	20,660
Clarke,	Marshall,	14,987	Iroquois,	Middleport,	12,325
Clay,	Louisville,	9,886	Jackson,	Murphysboro,	9,589
Clinton,	Carlisle,	10,941	Jasper,	Newton,	8,364
Coles,	Charleston,	14,208	Jefferson,	Mt. Vernon,	12,965
Cook,	Chicago,	144,952	Jersey,	Jerseyville,	12,051
Crawford,	Robinson,	11,551	Jo Davies,	Galena,	27,325
Cumberland,	Greenup,	8,811	Johnson,	Vienna,	9,842
De Kalb,	Sycamore,	19,086	Kane,	Geneva,	30,062
De Witt,	Clinton,	10,820	Kankakee,	Kankakee,	15,412
Douglas,		7,149	Kendall,	Oswego,	13,074
Du Page,	Naperville,	14,701	Knox,	Knoxville,	28,668
Edgar,	Paris,	16,925	Lake,	Waukegan,	18,257
Edwards,	Albion,	5,454	La Salle,	Ottawa,	48,232
Elliogham,	Ewington,	7,816	Lawrence,	Lawrenceville,	9,214
Fayette,	Vandalia,	11,489	Lee,	Dixon,	17,651

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Livingston,	Pontiac,	11,837	Putnam,	Hennepin,	6,587
Logan,	Lincoln,	14,272	Randolph,	Chester,	17,206
McDonough,	Macomb,	20,069	Richland,	Olney,	9,711
McHenry,	Dorr,	22,089	Rock Island,	Rock Island,	21,006
McLean,	Bloomington,	28,772	St. Clair,	Belleville,	37,694
Macon,	Petersburg,	18,788	Saline,	Raleigh,	9,331
Macoupin,	Curtinville,	24,602	Sangamon,	Springfield,	32,274
Madison,	Edwardsville,	81,251	Schuyler,	Rushville,	14,684
Marion,	Saline,	12,739	Scott,	Winchester,	9,069
Marshall,	Lacon,	18,487	Shelby,	Shelbyville,	14,613
Mason,	Bath,	10,931	Stark,	Toulon,	9,004
Massac,	Metropolis City,	6,218	Stephenson,	Freeport,	25,112
Menard,	Petersburg,	9,584	Tazewell,	Fremont,	21,470
Mercer,	Keithsburg,	15,042	Union,	Jonesboro,	11,181
Monroe,	Waterloo,	12,832	Vermillion,	Danville,	19,809
Montgomery,	Hillsboro,	13,979	Wabash,	Mt. Carmel,	7,818
Morgan,	Jacksonville,	22,112	Warren,	Monmouth,	18,836
Moultrie,	Sullivan,	6,885	Washington,	Nashville,	13,781
Marquette,	Clayton,		Wayne,	Fairfield,	12,223
Ogle,	Oregon City,	22,888	White,	Carmi,	12,403
Peoria,	Peoria,	36,601	Whiteside,	Sterling,	18,787
Perry,	Pinckneyville,	9,552	Will,	Joliet,	29,321
Piatt,	Monticello,	6,127	Williamson,	Marion,	12,306
Pike,	Pittsfield,	27,249	Winnebago,	Rockford,	24,491
Pope,	Galesburg,	6,742	Woodford,	Metamora,	13,282
Pulaski,	N. Caledonia,	3,943			

CITIES AND TOWNS.—Illinois has many flourishing and thrifty towns, but so rapid is their growth in population and wealth, that no census of them would be reliable for accuracy or suitable for reference for more than a year or two after taken. Chicago is by far the largest city in the State, having, in October, 1866, a population of 200,418. Peoria has about 30,000; Quincy, 25,000; Springfield, 18,000; Belleville and Alton, 15,000 each; Joliet, Bloomington, Jacksonville, Decatur, Rock Island, Aurora, Freeport, Cairo, etc., from 8,000 to 10,000 each. There are numerous other thrifty towns in the State. Indeed, there is scarcely one of the 102 counties but can boast of its county seat, with a population of from 3,000 to 5,000 inhabitants.

GOVERNMENT.—The executive authority of the State is vested in the Governor, elected by the people for a term of four years. He receives a salary of \$1,500, and is ineligible for more than four out of any eight years. He is, *ex officio*, Fund Commissioner. The Lieutenant-Governor is also elected by the people for four years, and is President of the Senate, receiving a per diem compensation of \$3 during the sessions. The Senate consists of 25 and the House of Representatives of 75 members, chosen by the people—the former for four, the latter for two years. The Judiciary consists of a Supreme Court of three divisions, presided over by as many Judges, each receiving a salary of \$1,200, and fifteen Circuit Courts, with a presiding Judge for each circuit, whose salaries are \$1,000 each. The right of suffrage belongs to all

white male citizens of 21 years of age who have resided in the State six months next preceding the election. Illinois is entitled to 14 members of Congress, and 16 votes in the Presidential College of electors.

HISTORY.—Illinois was first recognized as a distinct civil community when, in 1809, as a residuary remainder of the great North-western Territory, it was endowed with a Territorial government, under the designation of "The Illinois Territory," with Ninian Edwards as its Governor. Nine years later, having formed and adopted a constitution, it was admitted into the family of States; and, although the whole civil history of Illinois is contemporaneous with the lives of many persons still living, it is nevertheless true that her rivers and prairies had been diligently explored and graphically described long before the soil of Ohio, Kentucky, or Indiana had been pressed by the foot of the white man. While the space occupied by this part of the continent was set down upon the maps as "unknown regions," and the world seemed profoundly asleep as to its magnitude or quality, the far-seeing Jesuits, regarding it from their cloisters in Europe, had a much clearer conception of its vast extent and ultimate importance. They accordingly inaugurated active operations to explore and subjugate that great Hesperian field. Within the space of thirty years, from 1512 to 1542, three several expeditions were fitted out under the auspices of Spanish Jesuits, to explore and appropriate this new world. These expeditions were severally under the direction of Juan Ponce de Leon, who was mortally wounded in a battle with the natives; Pamphito de Narvaez, who penetrated the interior and crossed the Mississippi River; and Hernando de Soto, who, after the most revolting cruelty and perfidy toward the natives, died of mortified ambition, on the 21st of May, 1542. These expeditions were projected from the Gulf of Mexico, and had for their motive the exploration of the country, and its subjugation to Spanish jurisdiction and the Roman Catholic faith. With the failure of De Soto, the career of Spanish conquest northward was effectually checked. Meanwhile, a like spirit of adventure was actuating Frenchmen of the same faith to prosecute like expeditions from the north. In 1535 James Cartier explored the St. Lawrence, and six years later colonized the region and called it New France; but no results of consequence followed for more than sixty years, during which period all efforts at colonizing America were suspended. In 1608 Samuel Champlain brought out a French colony, and laid the foundation of Quebec, and, five years later, of Montreal. He accompanied an expedition of the Algonquins against the Iroquois, on the shore of the lake that bears his name. The Algonquins were victorious, but, nevertheless, the Iroquois confederacy effectually barred the progress of the French traders and missionaries to the South, and directed their course toward the great Western lakes. In 1616, La Caron, a Franciscan, and companion of Champlain, penetrated the wilderness to the waters of Lake Huron, and labored for ten years as a missionary among the Indian tribes, esteeming "the salvation of a soul worth more than the conquest of an empire." In process of time changes were made in the government of the colony. New France passed to the company of the West

Indies, and the Jesuit missions were taken in care by the new government, and Claude Allouez was sent on a mission to the far West. Passing around the south shore of Lake Superior to the chief villages of the Chippewas, he established a mission, and formed an alliance with the Pottawatamies, Sacs, Foxes, and Illinois against the Iroquois. The next year he learned from the Sioux of a great river flowing southward which they called *Missippi*, and returned thence to Quebec. He was soon followed by Marquette, Joliet, and others, stimulated by a religious zeal, love of adventure, and the exceeding beauty of the vast expanse over which they passed, until, on the 17th of June, 1673, floating down the Wisconsin, they entered the Mississippi, and pursuing the course of its channel passed the mouth of the Pekitanoni, or Missouri of our day, and of the Ouabouskigon, or Ohio, descended to the Arkamsea, or Arkansas, and being courteously received by the natives, retraced their way thence to the Illinois.

Robert Chevalier de la Salle, educated in a seminary of the Jesuits, and Louis Hennepin, a Franciscan friar of the Recollect Order, men of uncongenial spirit, though with similar objects in view, hearing of the partial success that had attended the expedition of Marquette, were soon on the ground to pursue the thread of discovery where it had been left by him. This they did until the 6th of April, 1682, when they had discovered the three passages by which the Mississippi discharges its water into the gulf. With religious pomp and ceremony, they took formal possession of the country drained by that mighty stream, in the name of "Louis le Grand, Roi de France et de Navarre, regne, le Neuvieme, Avril, 1682." This was a *denouement* somewhat different from what they had fondly anticipated, for it was the prevalent belief of that day that *a passage through the American continent might be found to China and the East*, and la Salle's mind was filled with the idea that the Mississippi River was the grand highway to that result. It was reserved to the last quarter of the nineteenth century to realize what was so fondly foreshadowed two hundred years before, by opening a great thoroughfare of nations across the American continent.

Having spent between two and three years, mostly in what is now the State of Illinois, Father Hennepin was detailed to accompany an expedition to explore a region of the upper Mississippi, and Sieur de la Salle went with another expedition to find, by way of the Gulf, the mouth of the Mississippi, in the prosecution of which enterprise he was, on the 20th of March, 1687, assassinated—the victim of a conspiracy among a portion of his own band. They had carefully explored the northern and central portions of Illinois, and made themselves familiar with the features and characteristics of that remarkable region of country. After a residence of eleven years in America, Father Hennepin returned to France, and in 1698 published in London two volumes, dedicated "To His Most Excellent Majesty William III, by the grace of God King of Great Britain," etc., the first of which is entitled "A New Discovery of a Vast Country in America, extending above four thousand miles, between New France and New Mexico, with a description of the Great Lakes, Cataracts, Rivers, Plants, and Animals."

The second volume is "A Continuation of the New Discovery of a Vast Country in America, giving an account of the attempts of the Sieur de la Salle upon the mines of St. Barbe, the taking of Quebec by the English, with the advantages of a shorter cut to China and Japan." These volumes are replete with historic incidents, and their accounts so accurate as to serve for a passably good physical description of Illinois at the present day.

Chicago is the most populous and commercial city in Illinois, and the most remarkable in the United States—probably in the world—in respect to its rapid growth. It is situate on the south-western shore of Lake Michigan, and on both banks of Chicago River. Latitude $41^{\circ} 52' 20''$ north, and longitude $87^{\circ} 35'$ west. It is built on an extensive plain, above inundation, and extending many miles south and west. The adjacent country for many leagues consists of beautiful prairie, arable and fertile. The Chicago River, with its north and south branches, (which unite about three-fourths of a mile from the lake,) separates the city into three portions. The main stream, flowing directly eastward, is from 50 to 75 yards wide, and from 15 to 20 feet deep, forming one of the best of natural harbors. The city is laid out in rectangular blocks, the streets conforming nearly to the cardinal points of compass. In 1832 it was an obscure hamlet—a mere point of traffic with the Indians—its inhabitants not numbering above three hundred. In 1846 it numbered about 17,000; in December, 1853, 59,130; in August, 1856, 84,113; in October, 1862, 138,186; in October, 1864, 169,353, and in October, 1866, 200,418. Who will venture to compute its population or wealth when the great Union Pacific Railway, now rapidly progressing, shall be completed? It will then be an important point on that great highway of nations.

MISSOURI.

MISSOURI, one of the largest of the United States, and the first formed wholly west of the Mississippi River, is bounded on the north by Iowa, (from which it is separated for about 30 miles on the north-east by the Des Moines River,) and on the east by the Mississippi River, which divides it from Illinois, Kentucky, and Tennessee; on the south by Arkansas, and on the west by Indian and Nebraska Territories and Kansas, from the latter two of which it is partly separated by the Missouri River. This State lies (with the exception of a small projection between the St. Francis and the Mississippi Rivers, which extends to 36°) between $36^{\circ} 30'$ and $40^{\circ} 30'$ north latitude, and between $89^{\circ} 12'$ and 96° west longitude, being about 285 miles in its greatest length from east to west, and 280 in width from north to south, including an area of 67,380 square miles, or 43,123,200 acres.

RIVERS.—Missouri enjoys the navigation of the two greatest rivers in the United States, if not in the world. By means of the Mississippi River, which coasts her entire eastern boundary, she can hold commercial intercourse with the most northern territory of the Union, with the whole of the valley of the Ohio, with some of the Atlantic States, and with the Gulf of Mexico. By means of the Missouri, her other great river, she may extend her internal commerce to the Rocky Mountains, besides receiving the products that may be furnished in future times by its multitude of tributaries. The Missouri River coasts the north-west of the State for about 200 miles, (following its windings,) and then darts across the State in a direction a little south of east, dividing it into two portions, of which about a third is north, and the remainder south of that river. The south shore is bounded in many places by bluffs of from 100 to 300 feet in height, while the north is often bottom lands, not generally liable to inundation. Both the Mississippi and Missouri Rivers are navigable for large steamers far beyond the limits of the State, though the navigation of the latter is impeded by the swiftness of its current (twice that of the Mississippi) and by the shifting sands.

The Missouri River, which is the longest tributary stream in the world, has its source in the Rocky Mountains, latitude 45° north, longitude $110^{\circ} 30'$ west. The springs which give rise to this river are not more than a mile from the head-waters of the Columbia, which flows west to the Pacific Ocean. The first 500 miles of its course to the Great Falls is nearly north; then inflecting east-north-east, it reaches its extreme northern bend at the junction of White Earth River, latitude $48^{\circ} 20'$ north. After this its general course is south-east till it joins the Mississippi in about $38^{\circ} 50'$ north latitude, and $90^{\circ} 10'$ west longitude. At the distance of 411 miles from the source of the Missouri, are what are denominated the gates of the Rocky Mountains. For a distance of nearly 6 miles, the rocks rise perpendicularly from the water's edge to a height of 1,200 feet. The river is compressed to a width of 150 yards, and for the first 3 miles there is only one spot, and that of but a few yards in extent, on which a man could stand between the water and the perpendicular walls. At a distance of 110 miles below this, and 2,575 miles above the mouth of the Missouri, are the Great Falls, where the river descends, by a succession of falls and rapids, 357 feet in 16 miles. The perpendicular falls, commencing down the stream, are, first, one of 87 feet, one of 19 feet, one of 47 feet, and one of 26 feet. Between and below these are continual rapids of from 3 to 18 feet descent. These falls, next to Niagara, are regarded as the grandest in North America.

The bed of the Missouri commences at the confluence of three small streams, about equal in length, and running nearly parallel to each other—Jefferson's, Madison's and Gallatin's. The Yellowstone, 800 yards wide at its mouth, and probably the largest tributary of the Missouri, enters it from the south-west, 1,216 miles from its navigable source. The two rivers, at their junction, are about equal in size. Steamboats ascend to this point, and may ascend further, both by the

main stream and its affluent. Chienne River, 400 yards wide at its mouth, enters the Missouri from the south-west, 1,310 miles from its mouth; White River, 300 yards wide, enters it from the south-west, 1,130 miles from its mouth; Big Sioux River, 110 yards wide, enters it from the north-east, 853 miles from its mouth; Platte River, 600 yards wide, enters it from the south-west, 600 miles from its mouth, Kansas River, 233 yards wide, enters it from the south-west, 340 miles from its mouth; Grand River, 190 yards wide, joins it from the north, 240 miles from its mouth, and Osage River, 397 yards wide, flows into it from the south-west, 133 miles from its junction with the main stream. The Missouri is stated to be 3,096 miles long to its confluence with the Mississippi; add to this 1,253 miles, the distance its waters must flow, to reach the Gulf of Mexico, and we have an entire length of 4,349 miles. There is, however, reason to believe, that the early statements respecting the extent of this river and its tributaries were somewhat exaggerated. Throughout the greater part of its course, the Missouri is a rapid, turbid stream. No serious obstacle, however, is presented to navigation from its mouth to the Great Falls, a distance of 2,575 miles, excepting, perhaps, its shallowness during the season of the greatest drought, when steamboats meet with difficulty in ascending. The flood from this river does not reach the Mississippi till the rise in the Red, the Arkansas, and the Ohio Rivers has nearly subsided. Vast prairies, with narrow strips of alluvion skirting the streams, compose the Missouri basin, excepting the upper portion of the river, which flows through an arid and sterile region. The entire extent of area drained, is estimated at 500,000 square miles.

Among the affluents of the Mississippi in Missouri are the White and St. François Rivers, which drain large sections in the north part of the State, but are properly rivers of Arkansas. The Maramec, which enters the Mississippi twenty miles below St. Louis, has a course of about 180 miles. Salt River, which joins the Mississippi 65 miles above the confluence of the Missouri, runs for more than 260 miles with a gentle course through a tolerably fertile bottom land. There are other considerable streams flowing into the Mississippi both above and below the Salt, which afford extensive mill-power.

Of the affluents of the Missouri from this State, the most considerable are the Osage and Gasconade. The Gasconade is important chiefly for the supplies of timber which it furnishes, and also for its vast water-power for manufacturing purposes; its length is about 120 miles. The Osage rises in the plains between the Kansas and Arkansas Rivers, and flows in a general east-north-east direction about 400 miles, joining the Missouri River, near the center of the State; it is 375 yards wide at its mouth, and is navigable for light-draught steamboats through half its course. The Charitan, Grand, Platte, and Nodaway rivers are affluents of the Missouri, from the north, and each is navigable for some distance. The Grand spreads out into numerous branches, and drains a large section of the middle prairies.

GEOLOGY.—The range of the geological formations in Missouri is almost limited to those groups which are comprised between the lower

silurian rocks and the upper coal measures. The drift formation is spread over the northern portion of the State; the river bottoms are formed of alluvium; and beds of clay and marl, called the bluff loess, of an age intermediate between the drift and alluvium, cap the river hills. In the southern and central portions of the State, ridges of porphyritic rocks are traced in the east and west direction, and among these, and at their contact with the silurian limestones, occur important deposits of iron ores and other metallic productions.

The upper and middle portions of the coal measures attain together a thickness of 500 feet, and are spread over the north-west part of the State, being a continuation of the coal formation of Iowa. The coal beds are few and small, and the coal is of highly bituminous character. The lower portion of the coal formation, measuring about 140 feet in thickness, is more productive in coal, and is worked in St. Louis County. It is thence traced westward across the State in most of the counties lying near the Missouri River on the south side.

Below the coal measures the formations are mostly of calcareous character, some of which are identified with those of the Eastern States. They are named as follows, by Professor G. C. Swallow, the State Geologist. The carboniferous limestone is subdivided into four members, viz., ferruginous sandstone, 195 feet thick; St. Louis limestone, 250 feet; Archimedes limestone, 200 feet; and the lowest encrinital limestone 500 feet; The devonian series is represented by the Chouteau limestone, vermicular sandstone and shales, lithographic limestone, Hamilton group, and Onondaga limestone, the total thickness amounting to about 330 feet; the upper silurian by the delthyris shaly limestone, 175 feet, and the Cape Girardeau limestone, 45 feet thick; the lower silurian, by the Hudson River group, 120 feet, Trenton limestone, 360 feet, and alternating formations, four of magnesia limestone, and three of sandstone, the aggregate thickness of which is over 1,110 feet, the three sandstone formations making of this only about 250 feet.

These groups are above the Potsdam sandstone, the occurrence of which has not been observed in the State. The third magnesian limestone is evidently the lead-bearing rock; but many mines are also worked in the second or next upper limestone. Hematite iron ores abound in these calcareous formations. The sandstones afford excellent sand for the manufacture of glass. The stratified rocks throughout the State lie in nearly a horizontal position, and their undulations are every-where gentle. Even where they meet the azoic formations, as the porphyries of the Iron Mountain and Pilot Knob range, they are not disturbed in their positions.

MINERALS.—Missouri is particularly rich in minerals, and a vast region in the neighborhood of Iron Mountain and Pilot Knob is, perhaps, unsurpassed on the globe for productiveness in iron of the best quality. Though existing in the greatest abundance and purity in this locality, this mineral is found on the Maramec River, at Birmingham on the Mississippi, 120 miles below St. Louis, and in other parts of the State. The principal mines of lead in Missouri, according to Whitney, are in

Washington County, on the branches of the Marameo River. There are a few others in Franklin and Jefferson Counties, but the aggregate product of lead from all the mines in the State, in 1851, was only estimated at 1,500 tons, a decline of more than one-half from that of 1842. Copper exists throughout the mineral region, (a tract of 17,000,000 or 18,000,000 acres,) but is most abundant near the La Motte mines. It is found combined with nickel, manganese, iron, cobalt, and lead, and these often yield 34 per cent. of the pure metal. Of the other metals named, all, except nickel, are found in considerable quantities. Silver exists in the lead ore, 350 pounds of pure metal having been obtained from 1,000,000 pounds of lead. Tin has been found in small quantities. Of the non-metallic minerals, limestone abounds north of the Missouri River, and forms a good building-stone. Marbles, beautifully veined and crystalline, are found in parts of the State; also gypsum, sandstones, red and white, porphyries, sienite, saltpeter, sulphate of baryta, kaolin, and inferior clays. The red sandstone is of too coarse and loose a texture for architectural purposes, but the white, found near St. Genevieve, makes superior glass. In a letter to us, Professor Silliman, sen., says: "At a place called Arcadia, the iron, in a dyke several yards wide, is bounded by walls of porphyry."

COAL.—Bituminous coal, much of it cannel coal, exists in vast beds on both sides of the Missouri River, below the mouth of the Osage, and 40 miles up that river. The great cannel coal-bed in Callaway County consists, in one place, of a solid stratum 24 feet, and in another 75 feet in thickness, and is believed to be the largest body of cannel coal known. Coal is also found in the neighborhood of Lexington, and in many other places.

COUNTIES—The following is a list of the counties in Missouri, with their county towns, together with the population of each county, according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Adair,	Kirkville,	8,531	Carter,		1,235
Andrew,	Savannah,	11,850	Cedar,	Stockton,	6,637
Atchison,	Stockport,	4,649	Chariton,	Keytesville,	12,562
Audrain,	Mexico,	8,075	Christian,	Ozark,	5,491
Barry,	Cassville,	7,995	Clark,	Waterloo,	11,684
Burton,	Lamar,	1,817	Clay,	Liberty,	13,023
Bates,	Butler,	7,216	Clinton,	Plattsburg,	7,848
Benton,	Warsaw,	9,072	Cole,	Jefferson City,	2,697
Bollinger,	Dallas,	7,371	Cooper,	Booneville,	17,356
Boone,	Columbus,	19,486	Crawford,	Steelville,	5,823
Buchanan,	St. Joseph,	23,861	Dade,	Greenfield,	7,072
Butler,	Poplar Bluff,	2,891	Dallas,	Buffalo,	5,892
Caldwell,	Kingston,	5,034	Davies,	Gallatin,	9,606
Calloway,	Fulton,	17,449	DeKalb,	Maysville,	6,224
Camden,	Linn Creek,	4,975	Dent,	Salem,	5,644
Cape Girardeau,	Jackson,	15,547	Douglas,	Vera Cruz,	2,414
Carroll,	Carrollton,	9,768	Dunklin,	Kennet,	5,026
Cass,	Harrisonville,	9,794	Franklin,	Union,	18,086

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Gasconade,	Herman,	8,727	Owage,	Linn,	7,879
Gentry,	Albany,	11,980	Ozark,	Gainesville,	2,447
Green,	Springfield,	18,186	Pennscoot,	Gayoso,	2,062
Grundy,	Trenton,	7,887	Perry,	Perryville,	9,128
Harrison,	Bethany,	10,626	Pettis,	Sedalia,	9,392
Henry,	Clinton,	9,866	Phelps,	Rolla,	6,714
Hickory,	Hermitage,	4,705	Pike,	Bowling Green,	18,417
Holt,	Oregon,	6,550	Platte,	Platte City,	18,850
Howard,	Fayette,	15,946	Polk,	Bolivar,	9,995
Howell,	West Plains,	8,169	Pulaski,	Waynesville,	8,835
Iron,	Ironton,	5,842	Putnam,	Unionville,	9,207
Jackson,	Independence,	22,896	Ralls,	New London,	8,592
Jasper,	Carthage,	6,883	Randolph,	Huntsville,	11,407
Jefferson,	Hillsboro,	10,344	Ray,	Richmond,	14,062
Johnson,	Warrensburg,	14,644	Reynolds,	Centerville,	8,173
Knox,	Edina,	8,727	Ripley,	Doniphan,	8,747
Laclede,	Lebanon,	5,182	St. Charles,	St. Charles,	16,523
Lafayette,	Lexington,	20,098	St. Clair,	Osceola,	6,812
Lawrence,	Mount Vernon,	8,846	St. Francois,	Farmington,	7,249
Lewis,	Monticello,	12,286	St. Genevieve,	St. Genevieve,	8,029
Lincoln,	Troy,	14,210	St. Louis,	St. Louis,	190,524
Linn,	Linneus,	9,112	Saline,	Marshall,	14,699
Livingston,	Chillicothe,	7,417	Schuyler,	Lancaster,	6,697
Macon,	Macon,	14,846	Scotland,	Memphis,	8,878
Madison,	Fredericktown,	5,664	Scott,	Commerce,	5,247
Maries,	Vienna,	4,901	Shannon,	Chiltenville,	2,284
Marion,	Palmyra,	18,838	Shelby,	Shelbyville,	7,801
McDonald,	Pineville,	4,038	Stoddard,	Bloomfield,	7,877
Mercer,	Princeton,	9,300	Stone,	Galena,	2,400
Miller,	Tusculum,	6,812	Sullivan,	Milan,	9,198
Mississippi,	Charleston,	4,859	Taney,	Forsyth,	3,576
Moniteau,	California,	10,124	Texas,	Houston,	6,067
Monroe,	Paris,	14,785	Vernon,	Nevada City,	4,850
Montgomery,	Daville,	9,718	Warren,	Warrenton,	8,839
Morgan,	Versailles,	8,202	Washington,	Potosi,	9,723
New Madrid,	New Madrid,	5,654	Wayne,	Greenville,	5,629
Newton,	Neesho,	9,819	Webster,	Marshfield,	7,099
Nodaway,	Maryville,	5,252	Wright,	Hartville,	4,608
Oregon,	Alton,	3,009	Worther,	Smithton,	

FOREST AND FRUIT TREES.—The river bottoms are covered with a luxuriant growth of oak, elm, ash, hickory, cotton-wood, linn, and white and black walnut. In the more barren districts are found white and pin-oak, and sometimes forests of yellow pine. The crab-apple, paw-paw, and persimmon are abundant, as also the hazel and the pecan. There are several specimens of wild grape. Apples, pears, peaches, apricots, and nectarines yield well.

AGRICULTURAL STATISTICS.—By the census of 1866, Missouri had 6,246,871 acres of improved land in farms, and 13,737,939 acres of unimproved land in farms. The cash value of the farms was \$230,632,126, and of farming implements and machinery, \$8,711,508. The number of horses in the State was 361,874; of asses and mules, 80,941; of milk

cows, 345,243; of working oxen, 166,588; of other cattle, 657,153; of sheep, 937,445, and of swine, 2,354,425. The live stock was valued at \$53,693,673, and the animals slaughtered at \$9,844,449.

The annual produce of wheat was 4,227,586 bushels; of rye, 293,262; of Indian corn, 72,892,157; of oats, 3,680,870; of rice, 9,767 pounds; of tobacco, 25,086,196 pounds; of ginned cotton, 101.5 bales of 400 pounds each; of wool, 2,069,778 pounds; of peas and beans, 107,999 bushels; of Irish potatoes, 1,990,850; of sweet potatoes, 335,102; of barley, 228,502; of cheese, 259,633 pounds; of hay, 401,070 tons; of cloverseed, 2,216 bushels; of other grain seeds, 55,713 bushels; of hops, 2,265 pounds, and of buckwheat, 182,292 bushels.

The orchard products were valued at \$810,975. There were produced 27,827 gallons of wine. The value of garden produce, for market, was \$346,405, and the number of pounds of butter made was 12,704,837. Of dew-rotted hemp, there were 15,789 tons; of water-rotted, 1,507, and of other prepared hemp, 1,972 tons. The product of flax raised was 109,837 pounds; of flax-seed, 4,656 bushels, and of silk cocoons, 127 pounds. There were made 142,430 pounds of maple sugar; 22,305 gallons of syrup and maple molasses; 776,101 gallons of sorghum; 79,190 pounds of beeswax, and 1,585,983 of honey. The value of home-made manufactures was \$1,984,262.

MANUFACTURES.—The census of 1860 gives the following manufacturing statistics for Missouri: Number of establishments, 2,923; capital invested in the same, \$8,576,607; the cost of the raw material used, \$12,798,351; the number of male hands employed, 14,880, and the number of female hands, 928; the cost of labor per annum, \$4,692,648, and the total value of manufactured products, \$24,324,418.

POPULATION.—The United States census made the aggregate population of Missouri, in 1850, 682,044, and in 1860, 1,182,012—an increase in ten years of nearly 500,000. The number of white males in 1860 was 563,144, and of white females, 500,365; total whites, 1,063,509. The number of free colored males was 1,697, and of free colored females, 1,875; total free colored, 3,572. The number of male slaves in 1860 was 57,360, and of female slaves, 57,571; total slaves, 114,931. Slavery is prohibited by the new Constitution of Missouri. In 1860 the total vote of the State for President was 65,518, and in 1864 it was 103,202.

HISTORY.—Though the French were the first settlers, and for a long time the principal inhabitants of Missouri, yet a very small portion of her present population is of that descent. A fort was built by that people as early as 1719, near the site of the present capital, called Fort Orleans, and its lead-mines worked to some extent the next year. St. Genevieve, the oldest town in the State, was settled in 1755, and St. Louis in 1764. At the treaty of 1763, it was assigned, with all the territory west of the Mississippi, to Spain. In 1780 St. Louis was besieged and attacked by a body of British troops and Indians, 1,540 strong. During the siege, 60 of the French were killed. The siege was raised by Colonel Clark, an American, who came with 500 men to the relief of the place. At the close of the American Revolution, the

territory west of the Mississippi remained with Spain till it was ceded to France in 1801. In 1803, at the purchase of Louisiana, it came into the possession of the United States, and formed a part of the territory of Louisiana till the formation of the State of that name in 1812, when the remainder of the territory was named Missouri, from which (after a stormy debate in Congress as to the admission of slavery) was separated the present State of Missouri in 1821. In 1811 and 1812 occurred a series of earthquakes which, in the neighborhood of New Madrid in this State, caused the earth to open, and entirely changed the face of the country, swallowing up hills and forming new lakes, while others, at the same time, were deprived of their waters. The current of the Mississippi was turned back till the accumulating waters gained sufficient force to break through the newly-raised barrier. All this region is now a widely-extended marsh.

From its admission as a State to the present time, the progress of Missouri in material prosperity has been rapid, and immigration has been steadily augmenting its population. Agriculture, mining, commerce, and manufactures have expanded into vast interests, whose products are constantly and rapidly increasing in value and importance.

CITIES AND TOWNS.—*Jefferson City*, the capital of Missouri, and county-town of Cole County, is situated on the south or right bank of the Missouri River, and 125 miles from St. Louis, with which it is connected by the Pacific Railroad. The city is built on elevated ground, and commands a fine view of the scenery on the north bank of the river. The State-house, which is a handsome building of stone, the Governor's residence, the State Penitentiary, several hotels, and the churches of various denominations, are the principal public edifices. It is a place of active trade and extensive business.

St. Louis is the largest city in Missouri, and the commercial metropolis of the central Mississippi Valley. It is situated on the right bank of the Mississippi River, 20 miles below the entrance of the Missouri, 174 above the mouth of the Ohio, 744 below the Falls of St. Anthony, 1,194 above New Orleans, and 128 miles east of Jefferson City. Latitude $38^{\circ} 37' 28''$ north, longitude $90^{\circ} 15' 16''$ west. The site rises from the river by two plateaus of limestone formation, the first 20 and the other 60 feet above the floods of the Mississippi. The ascent to the first plateau, or bottom as it may be termed, is somewhat abrupt; the second rises more gradually, and spreads out into an extensive plain, affording fine views of the city and river. St. Louis extends in all nearly 7 miles by the curve of the Mississippi, and about 3 miles back; the thickly-settled portion, however, is only 2 or $2\frac{1}{2}$ miles in length, following the river, and about $1\frac{1}{2}$ miles in breadth. The city is well laid out, the streets being for the most part 60 feet wide, and, with but few exceptions, intersecting each other at right angles. Front street, extending along the levee, is upward of 100 feet wide, and built up on the side facing the river, with a range of massive stone warehouses, which make an imposing appearance as the city is approached by water. Front, Main, and Second streets, parallel to each other and to the river, are the seat of the principal wholesale business. The lat-

ter is occupied with heavy grocery, iron, receiving, and shipping houses. Fourth street, the fashionable promenade, contains the finest retail stores. The streets parallel to Front and Main streets, are designated Second street, Third, Fourth, Fifth, and so on; and those on the right and left of Market street, extending at right angles with the river, are mostly named from various forest trees, similar to the streets of Philadelphia. Large expenditures have been made, from time to time, in grading and otherwise improving the streets and alleys of St. Louis. St. Louis is handsomely built, especially the new portion of the city; the principal material is brick, though limestone is employed to some extent.

It may be doubted whether any city of the Union has improved more rapidly than this in the style of its public buildings. Some 35 years ago a court-house was erected at a cost of \$14,000; it was then considered a handsome edifice, and sufficient for all future purposes. Within a few years, however, this building gave place to a new structure, the cost of which did not fall short of half a million of dollars. It is constructed of Genevieve limestone, and occupies an entire square, bounded by Market, Chestnut, Fourth, and Fifth streets. The style of architecture somewhat resembles that of the Capitol at Washington. The fronts are adorned with porticoes, and in the interior is a rotunda, lighted from the dome. The "market and town-house," erected at a cost of \$20,000, was long since pulled down, and the "Center Market buildings," a handsome block, now occupies their place. The city hall is of a size and style corresponding to the present prospects of the city. The United States arsenal, situated on Arsenal street, in the south-eastern section of the city, is a large and imposing edifice, inclosed by handsomely ornamented grounds.

Of the four churches—the Catholic, the Presbyterian, the Episcopal, and the Baptist—which were all the town contained in 1829, not a vestige now remains; but in their stead there had arisen in 1860 over seventy others, among them 19 Catholic, 18 Methodist, 8 Baptist, 1 Episcopal, 8 Lutheran, and Congregational, Jewish, Unitarian, and Universalist houses of worship. Several of these edifices cost over \$100,000. Of these, St. George's (Episcopal), at the corner of Locust and Seventh streets; the Catholic Cathedral, on Walnut street, between Second and Third, and the Church of the Messiah, a magnificent gothic edifice erected by the Unitarians, at the corner of Olive and Ninth streets, are regarded as the finest. The Cathedral is 136 feet long and 84 feet wide, with a front of polished freestone 58 feet high adorned with a doric portico. In the tower is a chime of bells, the heaviest of which weighs 2,600 pounds. Among the other costly and splendid buildings in St. Louis are the Custom-house and Post-office building, which cost \$350,000, the Merchants' Exchange, the Mercantile Library Hall, the City Hospital, the Marine Hospital, the High-school building, St. Louis University, and several magnificent hotels.

St. Louis abounds in charitable and benevolent institutions. It had in 1860 ten orphan asylums, a home for the friendless, a house of refuge, with 125 inmates, a girls' industrial home, an industrial school

for boys, several free evening schools, an insane hospital, a maternity and infant hospital, a marine hospital, (a fine edifice of great capacity,) and three general hospitals, seven convents, and numerous benevolent and benefit societies. The Home for the Friendless, designed for the benefit of aged indigent females, and opened October 4th, 1853, is situated on the Carondelet road, about 4 miles from the court-house. The edifice, formerly "Swiss College," consists of a stone center, 75 feet in length, and two frame wings, each from 30 to 40 feet in length; the whole two stories high. The premises comprise about 8 acres of ground, variously diversified with walks and shade-trees.

The literary and educational institutions of St. Louis have, considering their recent origin, attained a high degree of excellence. The University of St. Louis, organized in 1832, under the direction of the Catholics, is a well-ordered, well-sustained, and most efficient institution. The medical college connected with it is also very flourishing. The university has a very valuable museum, a complete set of chemical and philosophical apparatus, and libraries containing about 22,000 volumes. It had, in 1860, 18 professors and instructors, and 134 students. The Washington University, incorporated in 1853, is intended to embrace the whole range of university studies, except theological, and to afford opportunity of complete preparation for every sphere of practical and scientific life. In 1860, three departments had been organized and were in operation—the academic, the scientific, the practical or industrial. The O'Fallon Pyrotechnic Institute is one of the departments of this university; it has a library of several thousand volumes, a well-supplied reading-room, and a corps of instructors in the different topics embraced in technological science.

St. Louis has also a commercial college of some note, and three medical colleges, one of which is homeopathic. The Academy of Science, founded in 1856, has a large museum and a good library, and has published its transactions, and is in correspondence with similar societies. A German Institute of Science, Art, and Mechanics was founded in 1856. Beside the libraries of the colleges, etc., there are three large public libraries—the mercantile library, one of them, had in 1860, 22,000 volumes. The Mercantile Library Association of St. Louis was organized in 1846, and incorporated in 1851. The building is of brick, in the Italian style, 105 feet by 127, and four stories high. The united size of the library and reading-room is 80 feet by 64. The lecture-room, 80 feet by 44, is in the second story, and in the third is a grand hall, the largest and finest, perhaps, in the whole West, being 105 feet long and 80 feet wide. The entire cost of building, including the site, is estimated at \$95,000.

The schools of St. Louis enjoy a high reputation. In 1860 they included a normal school, a high-school, occupying a fine and well-planned edifice, and twenty-six schools of lower grade. The amount of school tax for that year was \$78,463, in addition to the receipts of the School Fund and other funds, which were very large. Besides these, there were thirty-five schools, academies, and seminaries not connected with the Board of Education.

In 1860 there were 53 periodicals and newspapers published in the city, of which 11 were dailies—issuing, also, weekly editions—3 were published tri-weekly, 24 weekly, 4 semi-monthly, 9 monthly, and 2 quarterly; nine were printed in the German and one in the French language.

St. Louis had, in 1860, five theaters and one opera-house, and ten fine hotels, of which the largest and best were the Lindell House, an immense and costly structure, the Planters' Hotel, occupying the entire front on Fourth Street between Pine and Chestnut, the City Hotel, the United States, the Southern, the Virginia, the Missouri, the Everett, and the Monroe Houses.

At the beginning of 1860 there were five lines of city railroad in operation in St. Louis. There were 16 cemeteries in and around the city, several of them five and eight miles distant. The city was supplied with water from a large reservoir, into which it was pumped from the river by stationary engines, and distributed through the streets by iron pipes. Gas has been used for lighting the city since 1848. There were several large parks, one of which—the Fair Grounds—contains about fifty acres. The levee along the Mississippi River has been greatly improved within a few years, at a heavy expense, affording facilities for steamboats to discharge their cargoes superior to those of any other city on the Mississippi.

St. Louis is largely engaged in manufacturing. Her flouring-mills, of which there were 19 in 1860, have a very high reputation. Their production increased from 408,999 barrels, in 1851, to 873,546, in 1859. The sugar received at St. Louis in 1859 was 53,174 hogsheads, 9,186 barrels, and 6,695 boxes, and the molasses 56,024 barrels, and 15,981 kegs, being an amount equal to that exported to all other ports from New Orleans. The greater part of this was for the supply of the large sugar refineries of the city, which manufacture most of the sugar consumed in the Mississippi Valley.

The fur-trade of St. Louis, in 1860, amounted to \$549,422, \$340,000 being for buffalo robes, of which 85,000 were brought into market. There were also 125,000 racoon-skins, 37,000 mink-skins, 120,000 pounds of deer-skins, 10,800 wolf-skins, 34,500 opossum-skins, and from 1,000 to 5,500 each of fox, muskrat, wildcat, beaver, polecat, and other skins.

Oils and chemicals are extensively manufactured. Lard and linseed oils form an important item in the productions of the city; in 1852 the amount of the former was nearly 5,000 barrels, and in 1860, it was six times that amount. The manufacture of hemp into bale rope and bagging, the distilling of whisky, and the manufacture of tobacco, in which ten or twelve establishments were engaged in 1860, all give employment to a large number of hands and a very great amount of capital. A large amount of capital is also invested in the business of packing pork, beef, lard, and hams. Many of the leading provision dealers of the Eastern cities have their packing houses in St. Louis. The number of hogs slaughtered in 1860 was 78,000, and the pork shipped, including receipts from packing-houses above St. Louis, was 100,000 barrels, 18,000 casks and hogsheads, and 700,000 pieces; lard, 71,000 barrels; beef, 8,000 barrels.

The manufacture of iron surpasses all others in its extent and the amount of capital involved. The vast products of Pilot Knob and Iron Mountain are brought to St. Louis for smelting, and the manufacture of stoves, hollow-ware, and other castings, railing, machinery, locomotives, and stationary boilers. The amount of pig-iron received in 1858 was 17,565 tons; in 1859, 16,250, and in 1860, 19,700 tons. There is annually manufactured about 50,000 tons, brought from other points.

In 1850, since when the population has more than doubled, there were upward of 1,300 manufacturing establishments of all kinds in operation in St. Louis, employing a capital of over \$15,000,000.

St. Louis is also an important entrepot of trade, not only with Missouri and the adjacent States, but with the gold regions of Colorado, with Utah, Nevada, and California. The navigation of the Mississippi and the Missouri, with that of their numerous affluents, brings to it an immense traffic. By railroads St. Louis is in communication with the country north and west of it, and soon will be, by the completion of the Pacific railroad, in direct connection with the mineral regions in the West and and North-west, and with the prosperous country bordering on the Pacific coast. Eastward the city is connected by railway with the great network of lines that traverse Illinois, and extend their ramifications into every State east of the Mississippi River. Continuous lines connect it with New Orleans, with Nashville, Charleston, Richmond, Baltimore, Philadelphia, New York, and Boston. By lines of telegraph, it is in magnetic communication with all points East and South, and with the North-west and West—with the new mining towns and the cities on the Pacific coast.

The shipping owned, enrolled, and licensed at the port of St. Louis amounted, in 1854, to 48,575 tons, and in 1860, to 64,633 tons. The arrivals of steamboats in 1866 were 4,371, with a tonnage of 1,120,039.

There were in St. Louis, on the first of January, 1861, seven banks, with an aggregate capital of \$9,550,602, and holding \$5,021,049 of exchange. Their circulation was \$300,520. The country branches of these banks held \$4,909,210 of exchange, \$2,575,077 in coin, and had a circulation of \$6,377,965. The number of savings institutions was 12, and the capital of eight of these was \$2,640,000. There were 24 fire and marine insurance companies, nine of them on the mutual plan, though five of these had guarantee capitals; the nominal capital of the stock companies was about \$6,000,000; and three life insurance companies, all on the mutual plan. A Chamber of Commerce was organized in 1843, and a Mechanics and Manufacturers' Exchange, intended for encouragement and promotion of mechanical and manufacturing interests of the city.

The population of St. Louis in 1850, was 77,860; in 1860 it was 151,780. There were nearly 2,800 buildings erected in the city in 1860, at a cost of about \$7,500,000. The city has a fire department, provided with steam fire-engines. The city debt, in October, 1860, was \$5,016,700, a decrease of \$490,000 in 25 years. The valuation of real and personal property in 1860 was \$102,408,230; the tax levied was \$1,106,498, and the entire revenue of the city, \$1,453,356.

Among the many sites which the vast domain of uninhabited territory in the Mississippi Valley presented for founding a city, that on which St. Louis now stands was selected by Laclède, February 15th, 1764, as one possessing peculiar advantages for the fur-trade, and for defense against the Indians. The confluence of the different rivers in the immediate neighborhood was a desideratum in the estimation of the trapper; it has become of vast importance to the place in establishing it as a center for agricultural and manufacturing enterprise. The statistics of these early times show how that for 15 successive years, ending in 1804, the average annual value of the furs collected at this port amounted to \$203,750. The number of the deer-skins was 158,000; of beaver, 36,900; of otter, 8,000; of bear, 5,100, and of buffalo, 850. The population at this period was between 1,500 and 2,000, one-half of whom were absent a great part of each year as trappers and voyagers. It will readily be perceived that the elements which gave the settlement existence were not of a character adequate to foster it beyond the limits of a frontier village; and accordingly, as late as 1820, we find the accession of population had not swelled the original very materially. Up to this date the census only shows an advance to 4,598. Military expeditions and establishments, together with a sparse immigration, confined to those peculiar temperaments which delight in the wild and adventurous, still kept up a progressive improvement, which, centering here for personal security as well as for trade, still fixed it as the seat of a commercial and manufacturing metropolis, destined in a few years to become an object of interest throughout the world. On the 11th of August, 1768, a Spanish officer by the name of Rioux, with a company of Spanish troops, took possession of St. Louis and Upper Louisiana, as it was termed, in the name of his Catholic majesty, under whose government it remained until its final transfer to the United States, March 26, 1804. In 1813, the first brick house was erected; in 1817, the first steamboat arrived—both important events, but neither of which became frequent until several years after. In 1822, St. Louis was chartered as a city, under the title given by Laclède, in honor of Louis XV, of France. From 1825 to 1830, the influx of population from Illinois began to be of importance. From this State the commerce of St. Louis received its first great impulse, and from this State it still derives a large portion of its support. With 1829 the keel-boat entirely disappeared. The steamer Yellowstone about this time ascended to the Great Falls, and was succeeded by the Assinaboine and others. Dry-goods houses were already established, and these sent out retail branches to Springfield and other places in Illinois. Extensive warehouses began to be erected, some of which are still standing, having survived the great fire. They rose from their solid limestone foundations, built on a scale which shows that the impressions of the present were vividly portrayed to the minds of the people of that day.

The natural advantages which St. Louis enjoys as a commercial emporium are probably not surpassed by those of any inland port in the world. Situated midway between two oceans, and near the geographical center of the finest agricultural region on the globe, almost at the very focus toward which converge the Mississippi, the Missouri, the

Ohio, and the Illinois Rivers, there can be no doubt that she is destined, at no distant period, to become the great receiving and distributing depot of most of the vast region drained by these streams. Having already reached an enviable position among her sister cities, she is looking westward with a system of railways intended not only to bring to her markets the agricultural and mineral treasures of the Missouri basin, but eventually to extend beyond the Rocky Mountains to the valley of the Great Salt Lake, and finally to the golden shores of the Pacific Ocean.

Hannibal, a flourishing town of Marion County, on the Mississippi River, is 153 miles above St. Louis, and 15 miles below Quincy, Illinois. It is advantageously situated for commerce, and is rapidly increasing in population and business. Large quantities of hemp, tobacco, pork, etc., which are raised in the vicinity, are shipped at this point. The adjacent country is very productive, and rather populous. Coal and carboniferous limestone, an excellent material for building, are abundant here. A railroad extends from Hannibal to St. Joseph, on the Missouri, a distance of above 200 miles.

Lexington, a thriving post-village and township, capital of Lafayette County, on the right bank of Missouri River, 120 miles by the road west of Jefferson City. The situation is high and healthy. Lexington has an active trade with the caravans of Santa Fe and the Great Salt Lake. The great emigration to California which has passed through the county for several years past, has furnished a market for grain, cattle, and horses, at very high prices. Extensive beds of coal are found on the river bank here. The population of Lexington, in 1860, was about 5,000.

St. Joseph, the county town of Buchanan County, is situated on the left (east) bank of the Missouri River, 340 miles above Jefferson City, and 496 miles by water from St. Louis. It is the most commercial and populous town of Western Missouri, and one of the points of departure in the emigration to Oregon, California, etc. St. Joseph is surrounded by an extremely fertile region, in which wheat, tobacco, and hemp are cultivated. The town was laid out in 1843, and became the county-seat in 1845. It is connected with the Mississippi River by the Hannibal and St. Joseph Railroad, and with St. Louis and Jefferson City by lines of steamboats. The town is well built, and had, in 1860, a population of 8,932, a large female seminary, a convent, court-house, Odd-fellows' hall, several large hotels, five newspapers and periodicals—two of them daily—and ten churches. There were steam flouring and saw-mills, bagging and other manufactories. The trade of St. Joseph in fitting out the emigrant trains and expresses was very heavy, amounting, in some years, to three and four million dollars. It was chartered as a city in 1857.

Weston, a flourishing city and river port of Platte County, picturesquely situated on the Missouri River, 200 miles by the road west-north-west of Jefferson City, and four miles above Fort Leavenworth. It is the most commercial town on the Missouri River, or in the State, with the single exception of St. Louis. Its frontier position renders it

a favorable starting-point for the emigrants to California, etc., and the vast extent of this emigration, in years past, opened a ready market for cattle, provisions, etc., at excessively high prices. A constant and heavy trade was carried on with Salt Lake City and Valley. It also furnished the private and governmental supplies to Fort Leavenworth. Several newspapers are published in Weston. It was first laid out in 1838.

Independence, a thriving town, capital of Jackson County, is situated five miles south of Missouri River, and 165 miles west-by-north of Jefferson City. It is important as one of the starting-points in the trade with New Mexico and Utah, and a place where many of the emigrants to Oregon and California procure their outfit. It is the center of trade for a considerable extent of the surrounding country, which is extremely fertile. The prodigious tide of emigration which passed through this place for years, created a demand for horses, provisions, and merchandise, at prices which enriched the farmers and traders of this vicinity. It contains several churches, hotels, and newspaper offices. A railroad extends from the town to the river. The Mormons regard this place and the surrounding country as the destined seat of the saints, and as the Holy Land where they, at no distant day, will be gathered. They settled there in 1837, but were expelled by the people of Missouri, and took refuge in Illinois, and afterward in Utah. But to this day they express their expectation of eventually settling at Independence.

St. Charles, the county-seat of St. Charles County, is a thriving town, situated on the left bank of the Missouri River, 22 miles from its mouth, 144 miles below Jefferson City, and six miles by land south of the Mississippi River. Its site is elevated and beautiful. The rocky bluffs in this vicinity present delightful views of the adjacent rivers. Quarries of limestone and sandstone, and mines of coal, have been opened near the town. It is the seat of St. Charles College, which is under the control of the Methodists, and had, in 1860, six professors and fifty students.

Kansas City is in Jackson County, on the Kansas frontier, situated on the right or south bank of the Missouri River, three-fourths of a mile below the mouth of Kansas River, and 14 miles West from Independence. Its population in 1860 was eight or nine thousand. It is built on high ground, and well laid out, wide streets, and houses chiefly of brick. It is an important station on the emigrant route to the Far West via Kansas River, and the channel of an active trade. The city had, in 1860, 2 daily and 4 weekly newspapers, 7 churches—1 Baptist, 1 Episcopal, 2 Methodist, 1 Presbyterian, 1 Reformed, and 1 Roman Catholic—2 branch banks, an insurance company, several benevolent societies; a number of schools of various grades, including a German free school, a high school, and two female seminaries; an iron foundry, a saw-mill, a flour-mill, a tannery, brewery, and 7 brick-yards. It had, also, manufactories of agricultural implements, boots and shoes, etc., a large pork-packing establishment, and several lumber-yards.

FINANCES.—The total receipts into the State Treasury of Missouri,

for the fiscal year ending September 30, 1865, were \$2,463,909.03, and the total expenditures \$1,854,661.77, leaving a balance in the treasury of \$609,247.26, of which balance \$105,535.28 was in currency, and \$503,711 98 in Union military bonds and other issues of the State. The total bonded debt of the State, exclusive of bonds loaned the several railroads, was \$602,000, of which amount \$402,000 matured in 1862 and 1863. For these matured bonds, in pursuance of an act of January 2, 1864, new bonds, having twenty years to run, to the amount of \$260,000, had been exchanged. The total amount of the bonds of the State loaned to the railroads, including the bonds guaranteed by the State, was \$23,701,000 on which the accrued and unpaid interest up to January, 1866, was \$1,307,780. The amount of the war debt of the State reached \$7,546,573. This debt was incurred by the State for the payment of the six months' militia, the enrolled militia, and the different organizations called out by order of the Federal commanders. Of the gross amount, the sum of \$3,016,657 had been canceled. It was in progress of payment by the increased taxation upon persons immediately benefited by the objects for which the debt was incurred, It was believed that within two years the debt would be entirely extinguished.

THE NEW CONSTITUTION.—A State Constitutional Convention assembled at St. Louis on the 6th of January, 1865, and proceeded to make a new State Constitution, which was submitted to the people for adoption or rejection at an annual election held on the 6th of June following. The total vote on the question of the adoption of the new Constitution was 85,478, of which 43,670 were in favor, and 41,808 against it. It was, therefore, adopted by a majority of 1,862 votes.

The new Constitution requires a system of registration in every county of the State, to be prescribed by the Legislature. Previous to the adoption of such a system, every voter was required to take an oath, and after its adoption to take the same oath upon the registry of his name. No one unregistered can vote at an election, nor one registered, unless his name has been entered ten days previous. The oath prescribed is designated in the Constitution as the "Oath of Loyalty." Non-residents, whether Americans or foreigners, not otherwise disqualified, can vote after a residence of one year, or one year after having declared an intention to become naturalized. After January 1, 1876, no person unqualified can become a qualified voter, unless in addition to the previous requisites, he shall be able to read and write; cases of physical disability are excepted.

Among other provisions of the new Constitution, is a plan for the reorganization of the judiciary of the State; for a system of free schools, under which gratuitous instruction is afforded to all between the ages of five and twenty years; for the creation of corporations, to be authorized on general principles; and for other changes in the fundamental law of the State similar to those generally adopted in the Northern States.

EDUCATION.—The new Constitution directs the establishment and maintenance of a State University, with departments for instruction in agriculture and the natural sciences, and a normal school professorship.

The grant of Congress to the State for the endowment of an Agricultural College amounts to 330,000 acres of land.

The State University, at Columbia, is situated in the central and fertile portion of the State. The buildings are large, substantial, and elegant, and were erected without cost to the State. This institution is endowed with the fund arising from the sale of the land granted by the act of Congress of March 6, 1820, to the State for the use of a seminary of learning. Of this fund \$1,000,000 was invested in the stock of the State Bank of Missouri, and \$20,000 in the stock of the Branch Bank of Chillicothe. The new Constitution required this stock to be sold, or invested in United States or other securities.

The State holds in trust for the Common School Fund \$678,967.96, which was invested in stock of the State Bank of Missouri. The new Constitution required this stock, also, to be sold.

OBJECTS OF INTEREST TO TOURISTS.—We shall hardly be able to do justice to Missouri in this respect. To the geologist, the State possesses ample inducements for a visit; while the lover of fine scenery will find much to interest him in the wild bluffs both of the Missouri and Mississippi Rivers, which rise to an elevation varying from 50 to 300 feet. In the south-east part of the State, the scene of the earthquakes of 1811 and 1812, may be viewed many traces of that startling event: among others are to be seen, at the bottoms of lakes, submerged forests and canebrakes. Pilot Knob, 444 feet high, and Iron Mountain, 1,500 feet high, the former of steel, as it is said, and the latter of nearly pure iron, are well worth a visit from the curious and scientific tourist. Big Spring, at the head of the Maramec River, rising in a very deep basin, 100 feet across, and surrounded by banks as many feet in perpendicular height, gives rise to a stream 60 feet wide, and 3 feet deep, and with sufficient force to turn 2 mills at its source. The water is extremely cold. Schoolcraft describes a cave near some of the headwaters of the White River thus: "The opening appeared to be 80 or 90 feet wide, and 30 high. A vast, gloomy rotunda opened before us, which very soon after entry increased to a height of 60 or 70 feet, and in width to 150 or 200 feet. This hall extended into the rock southerly, branching off into lateral avenues. We explored the main gallery for 500 or 600 yards, when we met with obstructions."

CLIMATE.—The climate of Missouri is variable: in the winter the thermometer sinks below zero, and the rivers are frozen so as to admit the passage of heavily-laden vehicles. The summers are excessively hot, but the air dry and pure. In the autumns, bilious and remittent fevers are common on the river bottoms. Pulmonary complaints, however, to such a degree as to terminate in consumption, are unfrequent.

SOIL AND PRODUCTIONS.—The soil of Missouri, speaking generally, is good, and of great agricultural capabilities; but the most fertile portions are in the river bottoms, which are a rich alluvion, (in some cases, however, mixed with sand,) and in that portion north of the Missouri River, except in the east where a sandy soil prevails. South of the Missouri there is a greater variety in the soil, but much of it is fertile, and even in the mountains and mineral districts there are rich valleys, and

about the sources of the White, Eleven Points, Current, and Big Black Rivers, the soil, though unproductive, furnishes a valuable growth of yellow pine. The marshy district of the south-east part will, when the population shall have become sufficiently dense to justify the expense of drainage, be probably one of the most fertile portions of the State. The great staple of Missouri is Indian corn, and more hemp is produced than in any State except Kentucky. The other great products are wheat, oats, tobacco, wool, peas, beans, Irish and sweet potatoes, fruits, butter, cheese, pork, hay, flax, honey, and beeswax; considerable rye, buckwheat, market products, grass-seeds, maple sugar, and some rice, barley, wine, hops, silk, and molasses.

CONSOLIDATION OF RAILROAD DEBT.—The Legislature of Missouri passed an act on the 6th of March, 1866, providing for the entire consolidation of the railroad debt of the State, according to which its total amount, on the 1st of January, 1868, will be \$30,199,050. The details are thus given:

COMPANIES TO WHICH ISSUED.	ORIGINAL PRINCIPAL.	ACCRUED INTEREST.	TOTAL AMOUNT.
Pacific Railroad.....	\$7,000,000	\$2,040,000	\$9,940,000
Pacific Railroad, South-western....	4,500,000	2,080,000	6,580,000
North Missouri Railroad.....	4,340,000	1,827,000	6,177,000
Iron Mountain Railroad.....	3,500,000	1,470,420	4,971,420
Cairo and Fulton Railroad.....	650,000	278,000	928,000
Platte County Railroad.....	700,000	294,000	994,000
Total Railroad.....	\$20,701,000	\$8,834,420	\$29,535,420
Revenue Bonds per int. of 1859...	431,000	232,630	663,630
Total Railroad and Revenue...	\$21,132,000	\$9,067,050	\$30,199,050

From the above there is to be deducted the amount paid in coupons and bonds by the several State banks, and by the late owners of the Platte County Railroad, being about \$200,000.

	PRINCIPAL.	RATE INTEREST. PER CENT.	PRINCIPAL DUE.
State Bonds.....	\$602,000	6	1888
State Bonds for Railroads.....	13,701,000	6	1871-1889
State Bonds, Pacific Railroad.....	7,000,000	6	1872-1887
State Bonds, Han. and St. Joseph....	3,000,000	6	1872-1885
Revenue Bonds.....	431,000	9	1866

The consolidate bonds to be issued in exchange for the original bonds, with accrued interest added, will bear interest for the four years from January 1, 1868, at the rate of three per cent. only; for the four years from January 1, 1872, at the rate of four per cent.; and for the four years from January 1, 1876, at the rate of five per cent.; and thus increasing by quadrennial periods to six, seven, eight, nine, and ten per cent., will retain the latter rate until their maturity, January 1, 1918. This will average 7.76 per cent. per annum, simple interest, through the fifty years.

PACIFIC RAILROAD OF MISSOURI.—The Pacific Railroad of Missouri consists of a main line extending west from St. Louis to the Kansas State line, 283 miles, with a branch from Franklin to Rolla, 77 miles, to be continued to the south-west corner of the State. The main line is the connecting link between the eastern roads and the Union Pacific (E. D.) now open to Fort Riley and Junction City, 140 miles, into the very heart of Kansas. It also connects at Kansas City with the Missouri River Railroad, extending thence to Leavenworth. The branch points toward the Southern Pacific Railroad and any railroad that may be constructed to Galveston on the Gulf of Mexico. The company is one of the great Land Grant and State Aid corporations of Missouri. It was chartered February 12, 1849, and organized January 1, 1850. In June, 1850, surveys for the line were commenced, and July 4, 1851, the formal breaking of the ground took place. The main line was completed through so as to admit of trains being run over it, September 20th, and regular operations were commenced October 2, 1865. The construction of the road had thus gone on with interruptions through a period of fifteen years.

The South-west Branch, which, as projected, will have a length equal to that of the main line, was opened to Staunton, 28 miles from Franklin, in 1857, to Harrison, 47 miles, in 1859, and to Rolla, 77.50 in 1861. This branch, on account of default in paying interest on the State loan, was, in the spring of 1866, taken possession of by the Governor, and was afterward sold to a new organization, who have undertaken to complete it within a given time.

THE SOUTHERN PACIFIC RAILROAD.—The projected Southern Pacific Railroad commences at Springfield, Missouri. By an act approved July 27, 1866, Congress incorporated the Atlantic and Pacific Railroad Company, for the construction of a railroad and telegraph line from the States of Missouri and Arkansas to the Pacific coast. The capital stock of the company consists of one million shares of one hundred dollars each. The act grants the company every alternate section of land to the amount of twenty sections per mile on each side of the railroad through the territories, and ten alternate sections per mile through the States. The act provides for the consolidation of the Southern Pacific Railroad Company, incorporated under the laws of the State of California, with the Atlantic and Pacific Company.

The length of the proposed Southern Pacific Railroad, whose eastern terminus is at Springfield, Missouri, is computed at 1,806 miles—169 miles less than the estimated length of the Union or Central Pacific road. The Southern route lies mostly through valleys, unobstructed by mountain chains other than the low range bordering on the valley of the Rio Grande. About four hundred miles west of St. Louis, it crosses the waters of the Arkansas where they are navigable. It passes through New Mexico at Albuquerque, touches the head of navigation on the Colorado, and enters California in San Bernardino County, just below the sharp corner formed by the Colorado with the eastern boundary of California and the western of Arizona.

In the regions traversed by this road, the summers are described as

temperate, long and dry; the winters are short and mild; while there is much good soil, wood, water, and an abundance of mineral wealth.

A railroad by this route would afford an outlet for the mines of New Mexico, Arizona, Southern Nevada, and California, and for the cotton-growing regions of Southern Utah. It would not immediately command so great a traffic as awaits the Central Railroad across the continent, which lies directly through the most flourishing western settlements, and on the path of the heaviest column of emigration; but it would find a sufficient traffic for its support, and would create a local business by stimulating the development of regions now comparatively isolated.

At the beginning of the present year, (1867,) the preliminary arrangements for the survey of the route were in active progress. The San Francisco Company had filed with the Register of the United States Land-office in that district plans indicating the route of the preliminary survey of the road, and marking the public lands that would be reserved along its line, in pursuance of the act of Congress. It was busily engaged, as it had been for some time previous, in securing the rights of way, and in making other preliminary arrangements. The preliminary surveys had been already commenced.

THE MISSOURI LEAD MINES.—We extract the following from the article "Lead," in Appleton's New American Cyclopaedia:

"The Missouri lead mines were discovered and first worked in 1720, by Renault and his mineralogist La Motte, who came out with a large party under authority of a patent granted by the French Government to John Law's famous company. Mine La Motte, and the Potosi lead mines, were discovered and opened by them. But little, however, had been done up to Renault's return to France in 1741. The only smelting of the lead ores appears to have been done on log-heaps, a wasteful process, much practiced even of late years.

"In 1798, as stated by Schoolcraft in his 'View of the Lead Mines of Missouri,' Moses Austin, of Virginia, having obtained of the Spanish Government a grant of land near Potosi, sank his first regular shaft, and erected a reverberating furnace, and also a shot-tower. According to the same authority, there were 45 mines in operation in Missouri in 1819, giving employment to 1,100 persons; in 1811, mine Shibboleth produced 3,125,000 pounds of ore. From 1794 to 1816, mine a'Burton and the Potosi diggings were estimated to have produced over 500,000 pounds annually; and from 1834 to 1837, the production of mine La Motte is rated at an average of 1,035,820 pounds of lead per annum.

"For 14 years succeeding 1840, Dr. Litton, in his State Geological Report, makes the annual average of all the mines over 3,833,121 pounds; and yet he thinks that in 1854 there were scarcely 200 persons engaged in mining, beside those employed at Perry's, Valle's, and Skewer's mines. The most productive mines have been found in Washington County; but many others have been met with in the south-east part of the State. The geological formation in which they are chiefly contained lies below the Trenton limestone, and by Professor Swallow

is regarded as the equivalent of the calciferous sand-rock of the New York reports, which appears to be here represented by a group of alternating beds of magnesian limestone and sandstone. The second and third of these limestones below the Trenton limestone have produced the principal supplies of the ore; and in some localities in the State, lead is found in the coal measures, even in the coal-beds themselves, and has been worked to some extent in the carboniferous limestone called the Archimedes, or mountain limestone. The third magnesian is regarded by the Missouri geologists as corresponding to the lower magnesian of the upper lead region, which is there unproductive.

"The mines are frequently along the line of meeting of the limestone with granitic rocks, though in this position the deposits are either superficial, or run between the calcareous strata, without penetrating the granite. Various other ores are associated with the Galena, as the carbonate of lead, called by the miners dry-bone, white mineral, etc., the sulphuret and silicate of zinc, known as black-jack, pyritous iron and copper, and at some of the mines, as mine La Motte, carbonate of copper, and black oxides of manganese and cobalt. The surface of the country in the lead region is strewn with crystallized quartz, derived from the lead-bearing rocks, and called by the miners 'mineral blossom.' The modes of the concurrence of the lead ore are generally the same as those common to the more northern mines; namely, surface deposits, vertical crevices, and flat sheets.

"The openings in the vertical fissures vary from the capacity of a cubic foot to ten or twelve feet square, and when very small are called pockets. They do not preserve a uniform course, but connect one with another, by passages filled with material different from the walls, and extending toward every point of the compass. Valle's mine, in St. Francois County, and Perry's, on its extension south, present a remarkable net-work of veins spread over an area of about 1,500 feet in length by 500 in breadth, varying north-west and south-west. There are, also, examples of mines of a more permanent character than are found in the northern lead region. Valle's mine was discovered in 1824, and it is believed has been worked ever since without interruption. There are 14 shafts upon it, and 8 more principal shafts upon Perry's mine. Of all these, only 2 are less than 50 feet deep; 6 exceed 110 feet, and one of them is 170 feet deep. They are in gravel and clay 10 to 30 feet, then in a light-colored silicious magnesian limestone, which passes below into a variety of very close texture, and known by the miners as the cast-steel rock.

"Three series of caves are found; the second set 18 or 20 feet below the first, and the third about 8 feet below the second. The middle set has been the most worked. They run out into every direction, and in some instances, communicate by chimneys with the set above or below. They are filled with clay, loose rock, and ore, the last often an intermixture of galena and silicate and carbonate of zinc, which requires roasting and washing to prepare it for the furnace.

"From 1824 to 1834, Valle's mine, it is estimated, produced about

10,000,000 pounds of lead, and about as much more in the next 20 years; Perry's mine, about 18,000,000 pounds from 1839 to 1854. These are remarkable instances of lead-mining prosecuted for so many years at one locality."

ARKANSAS.

ARKANSAS has an area of 52,108 square miles, and extends in the great valley of the Mississippi from the parallel of 33 to that of 36.5 degrees north latitude, and is adapted alike to agriculture, commerce, and manufacturing. The Mississippi, along the eastern boundary, receives the waters of six navigable rivers. The land is very fertile, and adapted to almost all growths, from the apples and cereals of the North-west to the cotton, the great staple in the valleys of the Arkansas, Red, and Ouachitta Rivers. Prices range from one to five dollars an acre, many large plantations having been recently subdivided with a view to sale since the abolition of slavery. There is plenty of wood and timber—oak, cedar, hickory, black walnut, and yellow pine. In short, Arkansas possesses every element of external prosperity.

Arkansas, having for the most part the soil and products of the South, is bounded on the North by Missouri, East by the Mississippi River, (which separates it from the States of Tennessee and Mississippi,) South by Louisiana and Texas, and West by Texas and Indian Territory. It lies between 33° and 36° 30' north latitude, and between 89° 45' and 94° 40' west longitude, being about 240 miles in length from north to south, and 224 in breadth from east to west, and including an area of nearly 52,198 square miles, or 33,406,720 acres.

FACE OF THE COUNTRY.—The eastern part of Arkansas, for about 100 miles back from the Mississippi, is generally a vast plain covered with marshes, swamps, and lagoons, but occasionally interspersed with elevations, (some of which are 30 miles or more in circuit,) which, when the rivers are overflowed, form temporary islands. The Ozark Mountains, which enter the north-west part of the State, are of uncertain height; they do not, however, exceed 2,000 feet, and are generally much below that elevation. These mountains divide the State into two unequal parts, of which the northern has the climate and production of the Northern States, while the southern portion, in the character of its climate and productions, resembles Mississippi or Louisiana. The Black Hills in the north, and the Washita Hills in the west, near the Washita River, are the only other considerable elevations. The central part of the State, as well as the regions north of the Ozark Mountains, are broken and undulating.

MINERALS.—Arkansas gives indications of considerable affluence in mineral resources, which are principally coal, iron, lead, zinc, manganese, gypsum, and salt. The coal-field of Arkansas commences 40 miles above Little Rock, and extends on both sides of the river beyond

the western boundary of the State. Cannel, anthracite, and bituminous coal are all found in the State. Gold is said to have been discovered in White County. Near the Hot Springs is a celebrated quarry of oil stone, superior to any thing else of the kind in the known world; the quantity is inexhaustible; there are great varieties, exhibiting all degrees of fineness. According to a writer in De Bow's "Resources of the South and West," there is manganese enough in Arkansas to supply the world; in zinc it excels every State except New Jersey; and has more gypsum than all the other States put together, while it is equally well supplied with marble and salt. The lead ore of this State is said to be particularly rich in silver.

RIVERS, LAKES, ETC.—Arkansas has no sea-board, but the Mississippi River (which receives all the waters of this State,) coasts the almost entire eastern boundary, and renders it accessible to the sea from many points. Probably no State in the Union is penetrated by so many navigable rivers as Arkansas: owing, however, to the long-continued droughts which prevail in the hot season, none of these streams can be ascended by vessels of any size more than about nine months in the year. The Arkansas is the principal river that passes wholly through the State. It enters the western border from the Indian Territory, and sweeping almost directly through the middle of the State for about 500 miles, (the whole distance navigable for steamboats,) after receiving a number of small tributaries, discharges its waters into the Mississippi. The White River and the St. Francis, with their affluents, drain the north-east part of Arkansas. They have their sources in Missouri, and their outlet in the Mississippi River. The White River, which debouches by one channel into the Arkansas, and into the Mississippi by the other, is navigable for steamboats 500 miles, the Big Black River for 60, and the St. Francis for 300 miles. The Red River runs through the south-west angle of the State, and receives some small tributaries within its limits. It is navigable for steamboats beyond Arkansas. The Washita and its numerous affluents drain the southern part of the State. The main stream is navigable for 375 miles, and its tributary, the Saline, for 100 miles. The bayous Bartholomew, Boeuf, Macon, and Tensas are all tributaries of the Washita, and have an aggregate of 635 miles of navigable water. They all arise in the south part of Arkansas, and flow into Louisiana, where they join the Red River. The little Missouri and bayou D'Arbonne are western branches of the Arkansas, the former navigable 60 and the latter 50 miles for light steamboats. There are no considerable lakes in Arkansas.

OBJECTS OF INTEREST TO TOURISTS.—Under this head stands prominent the Hot Springs, situated in a county of the same name, about 60 miles south-west of Little Rock. From a point or ridge of land forming a steep bank from 150 to 200 feet high, projecting over Hot Spring Creek, an affluent of the Washita, more than 100 springs issue, at different elevations and of different temperatures, from 135° to 160° of Fahrenheit. A considerable portion of this bank consists of calcareous deposits, formed from the water as it is exposed to the air.

These springs are visited annually by thousands of people. The waters are esteemed particularly beneficial to persons suffering from the chronic effects of mercury; also in rheumatism, stiffness of the joints, etc. Near the top of the bank above alluded to, there is a fine cold spring, so near to the warm springs that a person can put one hand into cold and the other into hot water at the same time. The creek below the springs is rendered warm enough to bathe in, even in the coldest season. The mountains on the western border of the State abound with picturesque and romantic scenery. There is in Pike County, on the Little Missouri River, a mountain of alabaster, said to be of the finest quality, and white as the driven snow. In the same county also there is a natural bridge, which is regarded as a great curiosity.

CLIMATE.—The climate of the northern and western parts of Arkansas is allied to that of the North-western States, while the southern and eastern portions partake of that of Louisiana. The lowlands are unhealthy, but the uplands will compare favorably with the most healthful regions of the Western States. According to a meteorological table kept in Pulaski County, near Little Rock, the mean temperature of the year, from the 16th of December, 1850, until the 15th of December, 1851, inclusive, was 62°.66. Mean temperature of the months of December, January, and February, for the years 1849 and 1850, 45°.82. Mean temperature for the corresponding months for the years 1850 and 1851, 44°.52. Mean temperature for the months of June, July, and August, for the year 1850, 79°.66. Mean temperature for the corresponding months for the year 1851, 80°.26. There were 47 days during the summer of 1850 when the mercury rose to 90° and upward; 51 days during the summer of 1851 when the mercury rose to 90° and upward. The greatest elevation of the mercury in 1850 was the 24th of August, when it rose to 99°. The greatest elevation for 1851 was the 16th of August, when it rose to 99½°. The lowest depression of the mercury during the year 1850 was 8°, on the 8th of December. The lowest depression during the year 1851 was 12°, on the 19th of January. From the 1st of March, 1850, until the 30th of November, 1851, inclusive, there fell in rain and snow 79.66 inches of water, making an average of about 3.79 inches per month, and 45.52 inches in 12 months. The greatest amount during one month was in April, 1850, when there fell 7.93 inches of water; the least that fell in any one month was in September, 1851, when there fell .02 of an inch.

SOIL AND PRODUCTIONS.—There is a great variety in the soil of Arkansas; along the river intervals it is of the richest black mold, (yielding from 50 to 80 bushels of Indian corn to the acre,) but much of it unfit for cultivation for want of a system of drainage. On the White and St. Francis Rivers there is some land of especial excellence; while in the country back from the rivers there are some sterile ridges. Grand Prairie, between White and Arkansas Rivers, about 90 miles long and 30 broad, is badly supplied with water, but most of the other prairie lands are well watered. The region north of the Ozark Mountains, including about two tiers of counties, is well adapted to grazing,

it produces also abundance of excellent wheat, and, perhaps, the finest apples in the world. This section of the country is elevated, hilly, or rolling, interspersed with prairies, and abounds with fine springs of excellent water. Grain and stock are the staples. The tops of the hills and mountains are often flat or rolling, and covered with a good soil and a heavy growth of timber. The staple products of Arkansas are Indian corn, cotton, and live stock, and considerable quantities of wheat, oats, tobacco, wool, peas, beans, sweet potatoes, Irish potatoes, fruits, garden vegetables, butter, hay, rice, beeswax, and honey, with some rye, barley, buckwheat, wine, cheese, grass-seeds, hops, hemp, flax, silk, and maple sugar. There were in Arkansas in 1866, according to the census of that year, 1,933,036 acres of improved land in farms, and 7,609,938 acres of unimproved land in farms. The cash value of the farms was \$91,673,403, and of farming implements and machinery, \$4,024,114. The number of horses in the State was 101,249; asses and mules, 44,158; milch cows, 158,873; working oxen, 70,944; other cattle, 318,355; sheep, 202,674, and swine, 1,155,379. The live stock was valued at \$22,040,211, and the animals slaughtered at \$3,895,399.

The annual produce of wheat was 955,298 bushels; rye, 77,869; Indian corn, 17,758,665; oats, 502,866 bushels; rice, 215 pounds; tobacco, 999,757 pounds; ginned cotton, 366,465 bales of 400 pounds each; wool, 410,285 pounds; peas and beans, 439,412 bushels; Irish potatoes, 418,000; sweet potatoes, 1,462,714; barley, 3,079 bushels; buckwheat, 488 bushels.

The orchard products for the year were valued at \$56,230. There were produced 1,005 gallons of wine. The value of the garden products for market was \$38,094. There were made in the year 4,062,481 pounds of butter; 16,952 pounds of cheese; 8,276 tons of hay; 66 bushels of clover seed; 3,110 bushels of other grass-seeds; 164 pounds of hops.

There was produced during the year, 140 tons of dew-rotted hemp; 30 tons of water-rotted, and 676 tons of other prepared hemp. The flax raised amounted to 3,233 pounds; the flax-seed to 541 bushels.

There were produced in the year 3,097 pounds of maple sugar; 115,673 gallons of cane and maple molasses; 50,797 pounds of beeswax, and 802,748 pounds of honey. The value of the home-made manufactures for the year was \$928,481.

MANUFACTURES.—This State is not extensively engaged in manufactures. According to the census of 1860, there were only 375 manufacturing establishments in the State, with an aggregate capital of \$1,040,000 invested in the same. The value of raw material annually used in the same, including fuel, was \$909,000. The average number of male hands employed was 1,520, and of female hands, 35. The value of the annual manufactured product was \$2,150,000.

POPULATION.—Arkansas had, in 1820, 14,273 inhabitants; 97,574 in 1840; 209,897 in 1850, and 435,450 in 1860. The number of white males in 1860 was 171,501, and the number of white females, 152,690; total number of whites, 324,191. The number of free colored males was

72, and the number of free colored females, 72; total number of free colored, 144. The number of male slaves was 56,174, and of female slaves, 54,941; total number of slaves, 111,115. The total vote cast by Arkansas in 1860 for President, was 54,053, and for Auditor in 1866, 34,407.

FOREST TREES.—In Arkansas the bottom lands are generally covered with a heavy growth of cotton-wood, ash, cypress, and gum. The mountains or hilly portions have hickory and the different kinds of oak. Pine is found in considerable abundance on the Arkansas River, near the center of the State, and from this southward to Red River. Beech is found in great abundance on the St. Francis River. Immense quantities of these different kinds of timber are sent down the Mississippi River to New Orleans. From the letter of a highly intelligent correspondent, we extract the following passage: "The principal forest trees are the oak, (white,) found in remarkable abundance and of good quality; the other oaks are also abundant and very fine. White oaks, 5 feet in diameter and 60 or 80 feet without a limb, are common. Hickory, ash, black walnut, gum, cherry, pine, red cedar, dogwood, cypress, maple, beech, cotton-wood, poplar, sugar-maple in the northern parts; bois d'arc, (pronounced bo-dark,) sassafras, and black locust; all these are found in abundance and are very valuable. The pecan is included in hickory, and is also very abundant."

ANIMALS.—Arkansas is still the home of many wild animals, and the bear, buffalo, (a few of which are still found in the Mississippi swamp in Crittenden County,) deer, wolf, catamount, wildcat, beaver, otter, raccoon, and gopher yet infest its forests, prairies, and savannas. The gopher is a little animal found chiefly, it is said, west of the Mississippi. It is rather larger than a rat, and has pouches on each side of its head and neck, in which it carries out the dirt it makes while excavating its burrow. It is very destructive to trees by gnawing their roots. Of birds there are found wild geese, turkeys, and quails. The streams abound in fish, particularly trout.

COUNTIES.—The following are the counties in Arkansas, their county towns, and the population of each county, according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Arkansas,	De Witt,	8,844	Craighead,	Jonesboro,	3,066
Ashley,	Hamburg,	8,690	Cross,	Cleburne,	
Benton,	Bentonville,	9,308	Dallas,	Princeton,	8,288
Bradley,	Warren,	8,388	Desha,	Napoleon,	6,459
Calhoun,	Hampton,	4,108	Drew,	Monticello,	9,078
Carroll,	Carrollton,	9,888	Franklin,	Osark,	7,298
Chicot,	Columbia,	9,234	Fulton,	Pilot Knob,	4,024
Clarke,	Arkadelphia,	9,785	Greene,	Gainsville,	5,848
Columbia,	Magnolia,	12,449	Hempstead,	Washington,	18,984
Conway,	Springfield,	6,997	Hot Spring,	Rockport,	5,688
Crawford,	Van Buren,	7,850	Independence,	Batesville,	14,307
Crittenden,	Marion,	4,920	Isard,	Mount Olive,	7,215

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Jefferson,	Pine Bluff,	14,971	Pope,	Dover,	7,883
Johnson,	Clarksville,	7,612	Prairie,	Brownsville,	8,884
Jackson,	Jacksonport,	10,498	Pulaski,	Little Rock,	11,699
Lafayette,	Lewisville,	8,464	Randolph,	Pocahontas,	6,261
Lawrence,	Smithville,	9,872	St. Francis,	Madison,	8,672
Madison,	Huntsville,	7,740	Saline,	Benton,	6,640
Marion,	Yellville,	6,192	Scott,	Waldron,	5,145
Mississippi,	Osceola,	8,895	Searcy,	Lebanon,	5,271
Monroe,	Clarendon,	5,657	Sebastian,	Greenwood,	9,238
Montgomery,	Mount Ida,	8,638	Sevier,	Paraclifta,	10,516
Newton,	Jasper,	8,898	Union,	Eldorado,	12,288
Ouachita,	Camden,	12,936	Van Buren,	Clinton,	5,357
Perry,	Perryville,	2,465	Washington,	Fayetteville,	14,678
Phillips,	Helena,	14,876	White,	Searcy,	8,316
Pike,	Murfreesboro,	4,025	Woodruff,	Augusta,	
Poinsett,	Bolivar,	3,621	Yell,	Danville,	6,333
Polk,	Dallas,	4,262			

REVISION OF THE STATE CONSTITUTION.—A convention to revise the State Constitution of Arkansas, assembled at Little Rock on the 8th of January, 1864. Delegates were reported to be present from forty-two out of the fifty-four counties in the State. The Constitution, as amended by the convention, forever prohibited the existence of slavery in the State. The revised Constitution, as ordered by the convention, was submitted to the people at an election held on the 14th of March, 1864, at which time State and county officers were chosen, and also members of the State Legislature and members of Congress. The popular vote on the Constitution submitted was, as returned, 12,177 in its favor, and 220 against it.

HISTORY.—Arkansas was originally a portion of the Territory of Louisiana, purchased from France, during the administration of President Jefferson, for the purpose of controlling the navigation of the Mississippi. It remained a part of that Territory until 1812, when the present State of Louisiana was admitted into the Union. The remainder of the Territory of Louisiana was then organized as Missouri Territory, and so remained until 1821, when the State of Missouri became a member of the American Union, and Arkansas was erected into a separate Territory, bearing its present name. In June, 1836, a State Constitution was formed at Little Rock, and Arkansas became a State of the Union.

CITIES AND TOWNS.—*Little Rock*, capital of Arkansas, and seat of justice of Pulaski County, lies on the right (or southern) bank of Arkansas River, about 300 miles from its mouth, 155 miles west-by-south of Memphis, 1,065 miles west-by-south of Washington; latitude 34° 40' north, longitude 83° 10' west. It is situated on a rocky promontory, or bluff, about 50 feet high—the first that occurs in ascending the river—commanding a delightful and extensive view of the surrounding country. The State-house is a fine brick edifice, rough cast

The town contains a United States arsenal, the State Penitentiary, which has been once or twice burned down by the convicts, and churches, all handsomely built of brick, namely: Presbyterian, Episcopal, Methodist, Roman Catholic, etc. It has also a Masonic hall, an Odd-fellows' hall, and several seminaries. Many of the residents are planters who own estates in this part of the State. Little Rock communicates regularly by steamboats with different points on the Arkansas and Mississippi Rivers. Good clay for brick is found in the vicinity; also quarries of fine slate, and granite very like the Quincy granite, but not so hard. The origin of the name Little Rock is explained as follows: In ascending the river, there appears on the south bank, rising out of the water, a bald, igneous slate rock, which at low water is about twenty-five feet above the surface, but at high water is almost hidden from view. This gives name to the city, and is called by the town-people "The Point of Rocks." Two miles above this, on the north bank, is another rocky bluff, about 400 feet high, which is called the "Big Rock." On some of the earlier maps the town is laid down as Acropolis, or Arcopolis. This was the name given it by an act of the Territorial Legislature, which has never been formally repealed, but the name never obtained popular recognition. The growth of the city has been retarded by the lack of facilities for trade with the interior, and for communication with other places, and also from the fact that the title to a large portion of the ground on which the city is built was for a long time in litigation. The navigation of the Arkansas River is uncertain, and during a great part of the year is entirely closed. Its means of intercourse have, however, of late years, been considerably increased, through railroads and telegraph lines. The soil of the surrounding country is generally poor, except in the Arkansas bottom. The situation of the city itself is dry and healthful. A brook, forming a considerable valley, runs through the town. The handsome private dwellings, the wide streets, spacious grounds and gardens, and a profusion of shade-trees and shrubbery give Little Rock, especially in summer, a picturesque and romantic appearance.

Little Rock was laid out in or about 1820, and in October, 1820, became the seat of the Territorial Government. The population, in 1860, was 4,000 to 5,000.

Van Buren, the capital of Crawford County, lies 160 miles west-north-west of Little Rock, and five miles east of the Indian Territory. The village is finely situated on the left (north) bank of Arkansas River. It is one of the most commercial places in the whole State, the annual sales amounting to more than a million dollars. An extensive jobbing business is done here in supplying the smaller places of the surrounding country. Coal is found in the immediate vicinity, and the manufacturing operations are considerable.

Camden, a handsome village, capital of Washita County, lies on the right (west) bank of the Washita River, 110 miles south-by-west of Little Rock. It is situated on a declivity of a high range of hills, and is built in a very tasteful style. A few years ago the site was occupied by a dense forest, and many of the trees are still standing in the

streets. Camden is one of the most flourishing towns in the State, and possesses great advantages for trade, being at the head of navigation for large steamers, several of which are constantly employed in conveying produce down the river to New Orleans. The growth of this place has been very rapid, and is likely to continue so. It was settled about 1842. The site was formerly a rendezvous for hunters, and known as "Ecore a Fabre."

Batesville, a thriving town, capital of Independence County, is on White River, about 400 miles from its mouth, 90 miles north-north-east of Little Rock, and 115 miles from Memphis, Tennessee. Small steamers can ascend the river to this point at nearly all seasons. A great influx of emigration is directed to this section of the State, which offers strong inducements in soil and climate. Pine timber and water-power are abundant in the county. Batesville is the most important town in the north-east part of the State, and has an active trade. It contains, besides the county buildings, several churches and newspaper offices.

Fort Smith, a town, and a noted military post, is situated in Lebanon County, on the right bank of the Arkansas River, 163 miles by land west-north-west of Little Rock, and at the western boundary of the State, in latitude $34^{\circ} 45'$, and longitude 95° . It has had an extensive trade with the Indian tribes.

MICHIGAN.

MICHIGAN became a State of the American Union in January, 1837, and was the thirteenth State admitted under the Federal Constitution. It lies between latitude $41^{\circ} 40'$ and $48^{\circ} 20'$ north, and longitude $82^{\circ} 25'$ and $90^{\circ} 34'$ west. It is bounded north by Lake Superior, which separates it from British America; east by St. Mary's Strait, or river, Lake Huron, St. Clair River, Lake St. Clair, the Detroit River, and Lake Erie; south by Ohio and Indiana, and west by Lake Michigan and the Menomonee and Montreal Rivers, with the chain of lakes lying between their head-waters. The land area of the State is 56,243 square miles, or 35,995,520 acres, being 1.91 per cent. of the total area of the United States.

GENERAL DESCRIPTION.—Michigan consists of two irregular peninsulas, which are separated from each other by the upper ends of Lakes Michigan and Huron. The upper, or northern, peninsula comprises about one-third of the area of the State, and is bounded on the north by Lake Superior, on the east by St. Mary's Strait, which divides it from Canada, on the south by Lakes Huron and Michigan, and on the south-west by Wisconsin. From its north-west extremity, the Lake Superior shore trends north-east for a distance of about one hundred miles, to the end of Keweenaw Point, a long peninsula running out

into the lake. On the east side of this point is Keeweenaw Bay. Thence to Whitefish Point the coast line presents a regular undulation, with scarcely any good harbors. At Whitefish Point it bends sharply to the south, and afterward to the east, inclosing with the Canada shore the deep basin known as Tequamenon Bay, from the head of which flows St. Mary's Strait. At the mouth of this strait lie several islands, Drummond's Island, which belongs to Michigan, being of considerable size. The Lake Huron shore, extending thence westward to the Straits of Mackinaw, is much broken, and lined with islets. It is separated from Lake Michigan by the peninsula called Pointe St. Ignace. The shore of Lake Michigan is irregular, but offers no large inlets till Green Bay is reached, which opens from the north-west corner of the lake. More than half of the north and west shores of the bay belong to Michigan, and just within its mouth are two inlets extending northward, called the Big and Little Bays des Noquets.

The general aspect of the northern peninsula is rugged and picturesque. The Porcupine Mountains, which form the tributary ridge between the waters of Lake Superior and those of Lake Michigan, are about 2,000 feet high on the western boundary, and run east, broken here and there by extensive valleys, and throwing off spurs, which, in some cases, extend to the northern shore. The mountains are succeeded by plains and hills, which gradually extend into the elevated table-land, and finally into an undulating country, sloping on either hand toward the lakes. The greater portion of this region is occupied by vast forests, and much of the remainder by sandy plains.

The northern peninsula contains most of the mineral wealth of the State, but its soil is generally sterile. The southern peninsula is, in nearly every respect, a contrast to the northern. It lies between Lakes Huron and Michigan, and is bounded on the south-west by the St. Clair River, Lake St. Clair, Detroit River, and Lake Erie. The Lake Huron shore is broken by Thunder Bay toward the north, and Saginaw Bay near the center. There are several inlets on Lake Michigan, the chief of which are Great and Little Traverse Bays. The surface is generally level, although on the south there is an irregular cluster of conical hills, from thirty to two hundred feet high; a low water-shed, at an elevation of six hundred or seven hundred feet, passes through the country from south to north, much nearer to the eastern than the western shore, with a very gradual and almost unbroken slope toward Lake Michigan, except near Au Sable River, where it partakes of a rugged character. The shores on both sides are, in many places, steep and elevated, and on Lake Michigan especially, there are numerous bluffs and sand-hills, from one hundred to three hundred feet high. The soil of the southern peninsula is luxuriantly fertile.

GEOLOGY.—The lower or southern peninsula of Michigan is composed almost wholly of groups of the Appalachian series of rocks, the highest of which, the coal formation, occupies the central portion of the country, from which the streams flow on one side into Lake Huron, and on the other into Lake Michigan. Though this is the most

elevated portion of the peninsula, the surface is little more than moderately rolling, the structure horizontal, and the bituminous coal-beds lie mostly too low to be worked without raising the water by pumping. The coal-field is open to the lake by Saginaw Bay, the shores of which are mostly in this formation. It extends as far south as Jackson, on the line of the Michigan Central Railroad, where a bed four feet thick has been opened and worked ninety feet below the surface. From the difficulty of obtaining coal in large quantities, but little is shipped.

Around the coal-field the underlying carboniferous limestone crops out in a narrow belt, and contains, in some localities, gypseous shales and some plaster of paris. To this succeeds the wider outcrop of the slates and sandstones of the Portage and Chemung groups, which stretch along the shores of both Lake Michigan and Lake Huron. The limestones and other strata of the Helderberg and Niagara groups surround these, sweeping round into northern Ohio and Indiana, and eastern Wisconsin, and forming the island of Mackinaw and the point of the peninsula south of this island. The mineral productions found in these formations are of no great importance. The limestones give fertility to the soil, and are abundantly supplied for all the purposes they can serve.

From the shores of Lake Huron, near Thunder Bay, an excellent stone is quarried for grindstones; and near Saginaw Bay salt-water is obtained by boring. The northern peninsula of Michigan is for the most part composed of the azoic formations, designated by the Canadian geologists the Laurentian and Huronian; the former comprising the various metaphoric slates and gneiss rocks, and the latter overlying slates and sandstones, which, by many geologists, had previously been referred to the lowest of the palæozoic formations. With the latter are found intercalated masses of trap, and with these the great veins of copper which the Lake Superior region is particularly distinguished. With the former, the range of which is south of the copper region, and also to the east of it, are found the immense bodies of magnetic and specular iron ores, for which the Lake Superior region has become so famous within a few years past.

THE LAKE SUPERIOR REGION.—Lake Superior presents an area of 32,000 square miles. It lies between the 46th and 49th parallels of latitude, and 88° and 92° of longitude west of Greenwich. Its greatest length is 400 miles. Its greatest breadth from Grand Island to Nee-pigon Bay is 160 miles. The surface of the lake is 600 feet above the level of the Atlantic Ocean; but its bottom is 300 feet below; for it has a mean depth of 900 feet. The French, who were the first explorers of Lake Superior, fancifully described it as a watery bow, of which the southern shore was the string, and Keweenaw Point the arrow. The lake discharges through the St. Mary's Strait into Lake Huron, which occupies a lower level by 44 feet 8 inches. The strait is about 70 miles long, but is divided into two sections by the Falls of St. Mary, 15 miles below Lake Superior. The lower section is navigable for small steamboats, and vessels drawing six feet of water. This section contains four large islands and several smaller ones; but

the principal channel—the westerly one—is nearly a mile in width. The Falls of St. Mary, or more properly, rapids, are three-fourths of a mile in length, having a fall in that distance, of 21 feet and 10 inches. The two sections are now united by a steamboat and ship canal.

Following along the indentations of the southern shore, around the westerly extremity of the lake, to Arrow River, opposite to Isle Royale, will give the extreme length of the American coast, which can not be much less than 1,000 miles; a part of which is in Michigan, part in Wisconsin, and part in Minnesota. Lake Superior is walled in by rocks, which, in some places, are piled in mountain masses upon the very shore. The waves dash against precipices and beetling crags, that threaten the unfortunate mariner, in a storm upon a lee shore, with almost inevitable destruction. There is tolerable anchorage at the head of St. Mary's strait. Keweenaw point has two sheltering bays, viz., Copper harbor and Eagle harbor. Protection may be found from the surf, under the lee of the Apostle Islands, at La Pointe. St. Louis River, at the head of the lake, is a good harbor; but the best harbors are afforded by the indentations of the shores of Isle Royale.

"Owing to the lofty crags which surround Lake Superior, the winds, sweeping over the lake, impign upon its surface so abruptly as to raise a peculiarly deep and combing sea, which is extensively dangerous to boats and small craft. It is not safe, on this account, to venture far out into the lake in batteaus; and hence, voyagers generally hug the shore, in order to be able to take land, in case of sudden storms. During the months of June, July, and August, the navigation of the lake is ordinarily safe; but after the middle of September, great caution is required in navigating its waters; and boatmen of experience never venture far from land, or attempt long traverses across the bays. The boats are always drawn far up on the land at every camping-place for the night, lest they should be staved to pieces by the surf, which is liable, at any moment, to rise and beat with great fury upon the beaches."

One of the most curious phenomena of the lake is the sudden and inexplicable heaving and swelling of its waters, when the air is still. Mr. Schoolcraft, who passed over Lake Superior, in 1820, thus describes it: "Although it was calm, and had been so all day, save a light breeze for a couple of hours after leaving the Ontonagon, the waters near the shore were in a perfect rage, heaving and lashing upon the rocks in a manner which rendered it difficult to land. At the same time, scarce a breath of air was stirring, and the atmosphere was beautifully serene." Now this agitation was observed at the close of the day's voyage, which had carried the party 50 miles from the Ontonagon, and the slight breeze had been blowing only a little while in the morning.

Another noticeable feature of Lake Superior is the extraordinary purity and transparency of the water, through which every pebble may be distinctly seen at the depth of 25 feet. When out in a canoe upon its surface, the frail vessel does not seem to be afloat upon a watery element, but suspended in mid-air, with ethereal depths around and below.

Those who have visited Lake George—the world-famous Horicon, whose waters were at one time carried to Rome to fill the Papal fountains—and Lake Superior, affirm that the latter far surpasses the former in clearness and transparency. Indeed, they assure us that, often, while looking down from the height at which the boat seems suspended, the head will grow dizzy, and a feeling of faintness be superinduced. The water of Lake Superior, like that of Lakes Michigan, Huron, and Erie, is “hard” and unfit for laundry purposes, without a previous breaking by soda or other means. This can be accounted for only on the supposition that it rolls over calcareous beds in some part of its course, but what part has not yet been ascertained; for the water of all the streams and springs that flow into the lake, so far as they have been examined, is found to be “soft,” and so entirely free from earthy or other foreign matter, “that the daguerreotypist finds it better for his purposes than the best distilled water of the chemist.”

Not less peculiar is the atmosphere around and over the lake, which plays strange and fantastic tricks in the face of high heaven, seeming to possess a life and spirit strictly in unison with the wonderful expanse of waters that lies spread out below. The *mirage* of Lake Superior fills the spectator with astonishment. For weeks during the summer, the traveler along the shores of this inland sea may be gratified by a view of the most curious phantasmagoria—images of mountains and islands being vividly represented in all their outlines, with their tufts of evergreen trees, precipices, and rocky pinnacles, all inverted in the air, and hanging high over their terrestrial originals, and then again repeated upright in another picture directly above the inverted one. Rock harbor, in Isle Royale, is the most noted locality for observing these phantasmagoria. But the *mirage* is not confined to any particular part of the lake. Frequently, the voyager, long before he has come in sight of land, will see the coast he is approaching pictured upon the skies along the horizon; and after the real shore has appeared, three views of it will be presented—two right side up, according to the order of creation, and the middle one bottom upward. Vessels will appear to be sailing in the air, points of land bent up at right-angles, and the sun at setting twisted into astonishing shapes.

The skies and the waters seem to harmonize completely together. While the sky daguerreotypes all below, the water catches the tints of all that is above, and the ethereal dome is caverned in the deep. Mr. Jackson, United States Geologist, says of the lake: “The color of the water, affected by the hues of the sky, and holding no sediment to diminish its transparency, presents deeper tints than are seen on the lower lakes—deep tints of blue, green, and red prevailing, according to the color of the sky and clouds. I have seen at sunset the surface of the lake of Isle Royale of a deep claret color—a tint much richer than ever reflected from the waters of other lakes, or in any other country I have visited.”

Lake Superior, unlike Lake Huron, has but few islands. The largest of these are Grand Island, situated near the southern shore, 132 miles west of St. Mary's, and represented to have a deep and land-locked

harbor; Middle Island, toward the westerly extremity of the lake, near the group of Apostle Islands; and Isle Royale, near the northern shore, and within the jurisdiction of the United States. Isle Royale is about 40 miles long, and averages six miles in width. It is a most interesting island, singularly formed, and sending out long spits of rocks into the lake at its north-eastern extremity; while at its south-western end, it shelves off far into the lake, presenting slightly-inclined beds of red sandstone, the tabular sheets of which, for miles from the coast, are barely covered with water, and offer dangerous shoals and reefs, on which vessels, and even boats, would be quickly stranded, if they endeavored to pass near the shore." But igneous rocks constitute the rocky basis of more than four-fifths of the island, and in those portions of it where these exist, the shores are precipitous. "Bold cliffs of columnar trap and castellated rocks, with mural escarpments, sternly present themselves to the surf, and defy the storms. The waters of the lake are deep close to their very shores, and the largest ship might, in many places, lie close to the rocks, as at an artificial pier."

Isle Royale contains a great number of beautiful lakes, the largest of which is Siskawit Lake, on the southern side, near Siskawit Bay. It is also surrounded by innumerable small islands, which cluster close to its shores, as if for protection from the waves. Mr. Jackson, before referred to, gives the following interesting description of the general appearance of Isle Royale: "Added to the fantastic irregularities of the coast and its castle-like islands—the abrupt elevation of the hills inland, rising like almost perpendicular walls from the shores of the numerous beautiful lakes which are scattered through the interior of the islands, and corresponding with lines of the mountain upheaval—we observe occasionally rude crags detached from the main body of the mountains, and, in one place, two lofty twin towers, standing on a hillside, and rising perpendicularly, like two huge chimneys, to the elevation of 70 feet, while they are surrounded by the deep-green foliage of the primeval forest."

In the secluded valleys between the hills of the Isle Royale there are either little lakes, or swamps filled with a dense growth of white cedars. Upon the higher lands, the timber is a mixture of maple, birch, spruce, fir, and pine trees, which are of thrifty growth, and will afford both timber and fuel. The soil of more than nine-tenths of the island is formed by the decomposition of the trap rocks, and such a soil is well known to be warm and fertile. In the lowlands, the springs from the hills will keep the soil cold and wet; but if properly drained, there is no doubt those lands might be cultivated, and would produce good crops. Indeed, this is said to have been proved in the vicinity of Rock harbor, where the lowland soil, which was originally covered with swamp-muck, is now drained and made productive.

In the deep shadow of the crags, and in some of the thick swamps of cedar, it is said that perennial ice has been found upon the island; and on the immediate rocky border of the lake-shore, the influence of the wintry winds from the lake is strikingly exemplified in the stunted growth of the fir and spruce trees that get root in the crevices of the rocks. Mr. Jackson says: "In numerous instances, we were able to

witness the joint effects of cold air and a limited supply of soil, in retarding the growth of trees, and giving the wood an extremely fine texture. Small trees have sprung up, having all the appearance of age which the dwarfed trees raised by the ingenious Chinese gardener are known to present. Those little trees, from four inches to a foot high, are covered with mosses, like old trees, and the tiny stem presents in its bark and wood the different layers representing many seasons. In cutting through these little trees, they were found, in some instances, to possess 40 different annual rings; and the wood was nearly as hard as boxwood, and as fine."

Rock Harbor, on the southern side of the north-easterly end of Isle Royale is the largest and most beautiful haven on Lake Superior. The bay extends about four miles up into the island. The water is deep enough for any vessels, and the harbor is perfectly sheltered from every wind. Around its entrance are numerous islands, that stand like so many rocky castles to break the heavy surges of the lake. "In some respects it resembles the Bay of Naples, with Procida, Capri, and Ischia at its entrance; but no modern volcano completes the back-ground of the picture, though there must at one time have been greater eruptions there than ever took place in Italy."

Lake Superior is fed by about eighty streams, which are represented to be not navigable, except for canoes, owing to the falls and rapids with which they abound. The principal ones that flow through American territory are the St. Louis, Montreal, Presque Isle, Arrow, Little Montreal, Ontonagon, Eagle, Sturgeon, Huron, Dead, Carp, Chocolate, La Prairie, Two-hearted, and Tequamenon Rivers. The largest of these are the Ontonagon and Sturgeon.

The Twin River, or Two-hearted River, as it is called by the traders, consists in the union of two separate streams, near the point of its outlet. It empties into the lake 72 miles westward of St. Mary's. A short distance beyond Grand Island, at the mouth of a small stream known as Laughing-fish River, a curious flux and reflux of the water is maintained, similar to the tides of the ocean. At the mouth of Chocolate River, there is a large bay setting up deep into the shore, which requires a day's canoe-travel to circumnavigate it. Just beyond that, the traveler will first strike the old crystalline rocks, or primitive formation. From hence, for two days' travel to Huron Bay, the shores present a continuous series of rough, conical peaks, which are noted for immense bodies of iron ore, chiefly in the condition of iron glance, from which the extensive iron-works of Carp River, seated at the foot of these mountains, are yielding such fine blooms. Continuing on westward across Keweenaw Bay, the canoe voyager will enter Portage Lake, embosomed near the base of Keweenaw Point, and, with a short portage, will reach the lake west of the point without the toil and distance of circumnavigating it. And, in doing so, he will observe that the geology of the country has become entirely changed. He will have passed into the midst of a region of trap dike—the great copper-bearing rock of Lake Superior. Passing onward along the lake, the dim-blue outlines of the Porcupine Mountains will rise to view on the edge

of the horizon, directly ahead. These mountains, on a clear day, may be seen from a distance of sixty miles. Soon the voyager will be seen traversing the entrance of Little Salmon, Graverod, Misery, and Fire-steel Rivers, to the mouth of Ontonagon River, where a large body of water enters the lake; but the mouth of the river is very much obstructed by a sand-bar. There, likewise, may be observed another of those curious refluxes, where the water, impeded and dammed up by gales, reacts with unusual force.

In crossing the St. Mary's Strait, from Point aux Pius to Point Iroquois, the first view of Lake Superior is to be had, affording one of the most pleasing prospects in the world. The St. Mary's River passes out of the lake between two prominent capes, viz.: Gros Cape and Point Iroquois. The former rises up in high, barren peaks, of hornblende rock; the latter consists of elevated masses of red sandstone, covered with a dense forest.

The La Grand Sables is an interesting feature of the lake coast. The shore consists of "several heavy strata of the drift era, reaching a height of 200 or 300 feet, with a precipitous front on the lake. The sands, driven up by the waters, are blown over these heights, forming a heavy deposit. It is this sandy deposit, falling down the face of the precipice, that appears to convert the whole formation into dunes, whereon the sandy coating rests like a veil. The number of rapacious birds which are observed about these heights adds to the interest of the prospect.

The pictured rocks of Lake Superior will always attract the attention of the tourist. The coast of rocks is twelve miles in length, consisting of a gray sandstone, and presenting perpendicular walls, which have been worn by the waves into pillared masses and cavernous arches. These caverns yawn into the face of the cliff, and the winds howl and the waves roar around their mouths. A small river leaps from the top of the precipice clear into the lake. At one place the "Doric Rock," a vast entablature, rests on two immense water-worn pillars. At another place, the precipice has been completely undermined, so that it rests solely on a single massive column, standing in the water. The dark-red clay, overlaying the rocks above, has been washed by the rains down the face of the precipice, and, being blended with the sand and dust blown about by the winds, presents a pictorial appearance. Schoolcraft says, "We almost held our breath in passing that coast."

The Ontonagon River, for four miles up from its mouth, is broad and deep, having a gentle current, flowing through a winding channel, between banks that are heavily wooded, the dark-green foliage overhanging the water. A long, narrow island divides the river into two channels, through which the current flows slowly and tranquilly to the lake. The stream above is broken by frequent rapids. The soil of the Ontonagon, near its mouth, is coarse and sandy; but it is said to be productive of garden vegetables. Further up the river the soil becomes clayey and loamy—very suitable for cultivation. Several mining companies have locations on this river; but at its mouth the land is reserved for the use of the Government. The banks are from seven to ten feet

high, supporting a fine growth of elm, whitewood, sugar-maple, birch, spruce, white-pine, and cedar; also, gooseberries and raspberries.

The Montreal River forms the boundary between Michigan and Wisconsin. It presents many attractions for the admirers of picturesque scenery, and exhibits the most beautiful waterfalls anywhere to be found along the entire coast of Lake Superior. A little way above its mouth, and within sight of the lake, the red sandstone rocks have a northerly dip of 70 degrees; and over this ledge, the river is precipitated 80 feet into a deep circular basin, the sides of which have been excavated by the rushing waters into a spacious amphitheater. About three miles further up the river, in a direct line from the lake, is a second waterfall, said to be fully as beautiful as the first.

Sturgeon River rises in the country to the south of the head of Keeweenaw Bay, and, running northerly, empties into Portage Lake. This lake is connected with Superior by Portage River, which may be ascended by vessels drawing eight feet of water, and to the head of the lake, 20 miles inland. Those streams, together with the Montreal River are famous for their sturgeon fisheries. All the rivers that flow into Lake Superior, at a little distance inland, become very rapid, broken by frequent waterfalls, furnishing water-power in great abundance. The heights of land between Portage Lake and Montreal River vary from 600 feet to 1,300 feet in height.

The Superior country is celebrated alike for its iron, its copper, and its silver. It can never become much of an agricultural country; but its mineral resources are very great, beyond the power of calculation. The country has been explored just sufficiently to enable us to form a mere rough guess as to its capability of producing the most valuable metals in constant use by man. The iron occupies a region distinct by itself. The copper and silver are found blended together.

The iron region of Lake Superior, no less than the copper region, is one of the wonders of the world. It commences along the coast of the lake, with the metamorphic rocks, extending from the Chocolate River to the Dead River, a distance of 10 miles, following the shore, and sweeps away southerly and westerly across the branches of the Menominee River—the Machi-gamig and the Brule—and the Sturgeon River, and the Esconaba River, that empties into Little Bay de Noquet, near the head of Green Bay. Now, it must be borne in mind, that the Chocolate River comes into Lake Superior from the south-east, and the Dead River from the west. On the meridian intersecting the mouth of the Dead River, the iron-bearing rocks extend directly south more than 11 miles; and on that of the Jackson Forge, nine miles west of the mouth of the river, the iron region is some 14 miles in width. Its western limit has not been determined; but it must be far within the borders of Wisconsin, having been traced in that direction nearly 100 miles. The northern limit is nearly on a line drawn due west from the mouth of the Dead River. The southerly limit, also, from the Chocolate River, runs pretty much straight west, till beyond the Esconaba, where it turns off south along the Machi-gamig, and crosses the Menominee. There the width of the iron region is known to be more than 50 miles. This

valuable mineral tract has been but partially explored, and no sufficient data have been furnished to estimate exactly its area.

There is the most abundant authority, however, for saying that the iron of the Superior country is both rich and inexhaustible. The following statements, condensed from the reports made by the persons engaged in the United States geological survey of the mineral lands, will convey some idea of the extent and quality of the ore.

The first bed of magnetic ore is situated near the Menominee River, and in the direction of Fort River, a branch of the Esconaba, at the corner of townships 41 and 42 north, and between ranges 29 and 30 west. It was found in a low ridge, some 3 chains in width, which appeared to be one mass of iron ore, stratified and jointed. The ore has generally a granular structure; color, iron-black, passing into steel-gray; luster, when fresh broken, metallic, but soon oxydizes, upon exposure to the atmosphere.

The second bed of ore is situated on the east boundary of township 46 north, range 30 west, sections 1 and 6, along the south-western shore of a small lake, in the Machi-gamig River. The extent of this bed of ore is unknown; but it borders that side of the lake, from 20 to 50 feet in height. The ore is likewise stratified and jointed, so that it may be quarried with ease. In color and luster it resembles the first—fresh fractures appearing like fine-grained cast-iron. Now, this bed of ore extends along through a range of hills on the north-easterly side, also, of that lake, to an unknown extent, and in a mass so great as to stagger belief. Let the surveyor speak for himself: "The river here forms a lake-like expansion, and is bounded on the north-east by a range of hills, which rise abruptly to the height of 200 feet above the water. We explored this ridge, and found that it was composed, for the most part, of nearly pure specular oxyd of iron. It shoots up in a perpendicular cliff, 113 feet in height, so pure that it is difficult to determine its mineral associations. We passed along the base of this cliff for more than a quarter of a mile, seeking for a gap, through which we might pass and gain the summit. At length, and by clambering from one point to another, we succeeded. Passing along the brow of the cliff, 40 feet, the mass was comparatively pure; then succeeded a bed of quartz, composed of grounded grains, with small specks of iron disseminated, and large, rounded masses of the same material inclosed, constituting a conglomerate. This bed was 15 feet in thickness, and was succeeded again by specular iron, exposed, in places, to the width of 100 feet; but the soil and trees prevented our determining its entire width. This one cliff contains iron sufficient to supply the world for ages; yet we saw neither its length nor its width, but only an outline of the mass."

The third bed of ore is situated on the east boundary of township 47 north, range 29 west, near section 13, in another cliff, facing south-west, and varying from 20 to 50 feet in height. The ore is stratified and jointed, and in quality similar to the other beds. The extent of this bed is likewise unknown. Thirteen chains distant, south-south-west from the main mass, on the shore of a pond, the ore rises above the surface in the form of a knob, 30 feet in height.

The fourth bed of ore is near the south boundary of township 48 north, range 28 west, on section 4, consisting of a knob of iron 50 feet in height.

The fifth bed of ore is in the next township west of the fourth bed, on section 32, consisting of a ridge of iron ore 8 feet in height. It was traced 75 chains. This bed is very extensive, and highly magnetic. In quality it is similar to the others.

In this manner the surveyors proceed to enumerate ore-bed after ore-bed, throughout the various townships of that great mineral tract. The foregoing is probably sufficient to satisfy the reader of exhaustless beds of that ore in the Superior country. With the mention of one more ore-bed, this enumeration shall cease. It is referred to because it is much nearer the Chocolate River than the others, being directly south of the Jackson furnace six miles, in township 47, range 26, sections 29, 30, 31, and 32. There are two hills of the ore, made up almost entirely of granulated, magnetic, or specular iron, with small quantities of spathous and micaceous iron. The more northerly hill extends east and west full a quarter of a mile, and is over 1,000 feet in width—a single mass of ore. The ore breaks readily into subrhomboidal fragments, in such manner as will greatly facilitate the operations of mining.

In conclusion, the geologists say: "This iron region is the most valuable and extensive in the world for the manufacture of the finer varieties of wrought-iron and steel. When we consider the immense extent of the district, the mountain masses of the ore, its purity and adaptation to the manufacture of the most valuable kinds of iron, and the immense forests which cover the surface, suitable for charcoal, this district may be pronounced unrivaled. The ore consists mainly of the specular, or peroxyd of iron, an admixture of the fine-grained magnetic. In some instances the whole ridge or knob appears to consist of one mass of pure ore—so pure that no selection is required; but an unlimited quantity might be quarried or picked up in loose blocks around the slopes. In others, the ore is mixed with seams of quartz or jasper, which renders it less valuable, and requires some care for the selection. The iron in such cases presents a banded or contorted structure, or alternating seams of steel-gray and brilliant red. The appearance of a mountain cliff thus made up is extraordinary. The Iron Mountain of Missouri becomes insignificant when compared with these immense deposits."

The surveyors report some good agricultural lands in this district. These tracts of fertile land will become of great value, when the rivers shall have been opened, and a mining population introduced, creating a sure and convenient home-market for the productions of the farm. This bountiful iron region, in most part, sustains a heavy growth of maple, birch, pine, and oak timber; and the streams, numerous and rapid, supply any amount of water-power.

Next in importance after the iron, is the copper of the Superior country. The region where that metal is found, along the southern shore of the lake, is described as follows, by Messrs. Foster and Whit-

ney, United States geologists: "The examination of a great number of localities has demonstrated that the veins of copper and its ores, in the sandstone and conglomerate, are not to be relied on, and that when worked, even to an inconsiderable depth, they give out. Although copper is found at short intervals, from the Pictured Rocks to the Montreal River, in this rock, yet we have designated no tract in it as mineral land. As all the productive lodes are confined to the ranges of trap, all of the mineral tracts designated lie within those ranges. What is generally known as the trap range, consists of a belt of igneous rocks, composed for the most part of hornblende and feldspar, which in places have broken through the sandstones, tilting them up at high angles; but oftener are found in alternating beds, having the same dip as the detrital rocks. The trap range extends from Montreal River—the western boundary of the district—and disappears in the lake at the extremity of Keweenaw Point. Its general course is a little north of east, preserving a pretty uniform parallelism with the southern coast of Lake Superior. Its width varies from two miles to twelve. Throughout this range—nearly one hundred and fifty miles in extent—copper, mostly native, is disseminated, but more profusely in some places than others. In fact, there may be said to exist two centers of metallic riches, around each of which copper has been accumulated in considerable quantity, but under circumstances somewhat different. The one may be designated as the Keweenaw Point center, which has a system of veins cutting across the trap range. The other may be designated as the Ontonagon center; and here the veins preserve a certain parallelism with the ranges, or run with the formation."

The red sandstone and conglomerate rocks of Keweenaw Point undoubtedly existed long before the trap-rocks were pushed up through them, and were produced by the deposition of fine sand and pebbles in water; for the ripple marks are well preserved, and record this fact in the most absolute and positive manner. It is supposed that, by pressure and heat, the materials of a loose, shifting sand became converted into a solid sandstone, the layers of sand forming the different strata. Previous to the action of the disturbing forces from beneath, the sandstone must have been composed in horizontal layers, as water necessarily deposits a mechanical sediment in that manner. But the sandstone has been broken through by the trap-rocks, and elevated at considerable angles along the line of its disruption. It is plain that the forcing of a melted mass of rocks up through such a sedimentary strata must have exerted a powerful influence upon the sediment itself. Accordingly, it is found, at Keweenaw Point, that a chemical combination took place, of the material of the sandstone with the material of the trap-rocks, along the line of junction, resulting in the formation of an amygdaloid rock. And between the sandstone and the trap is found a mass of broken, indurated sandstone, scoria of fused trap and sandstone, amygdaloidal and compact trap, and porphyry; which together form, when re-cemented by heat, a rock known as trap-tuff or breccia. Near Eagle River, the trap breccias occupy a considerable space between the sandstone and the amygdaloid; and some have mistaken them for a

conglomerate of the sandstones in that vicinity. And when the trap-rocks conjoin with the sandstone, the former is found to be amygdroidal, and the cavities generally filled with chlorite, in particles varying in size from a pea to a walnut. In one portion, it has been noticed that whenever a cavity is filled with chlorite, a granule of copper will be found concealed in its center; but nearer the copper veins the cavities are oftener filled with pure copper or silver, or with both these metals. One of the most surprising features of the trap region of Lake Superior is the occurrence of veins of solid metallic copper, admixed with native silver, and yet not alloyed with it. Two veins occurring in a stratified rock generally traverse the strata at a considerable angle, and are more regular than those which run parallel to the layers, possessing well-defined walls, and often incrustated with vein-stone, prehnite, quartz, and calcareous spar. The rocky fissure is filled with vein-stones of different kinds, which, together with the accompanying minerals, constitute the lode. Sometimes the veins, at the surface, are composed entirely of prehnite, and contain only minute specks of copper inclosed in the crystals, or sparsely scattered throughout the mass. Beneath this covering of vein-stones is found the solid metallic copper of Lake Superior.

The rocks of the copper region have been elevated to an angle of about forty degrees, inclining to the north-west, by the terrific forces that injected the molten copper throughout their cracks and crevices. Along the hillsides, where, by reason of this angular elevation, the rocks are made to outcrop the superincumbent masses of decayed rock, and other accumulations, have been washed away by the action of torrents, and the metal, in some places, appears at the surface. Some of those points where the copper is thus exposed would seem to have attracted the attention of the Indians long before any white man ever trod the bleak and sterile shores of Lake Superior. Along the banks of the Ontonagon River have been found the ancient mines to which the tribes must have resorted for a supply of copper for the manufacture of tools and ornaments. The metal was very highly prized by them, and pieces of native copper were treasured up with great care, and used as an article of traffic. It is evident that the aboriginal miners were not more advanced toward civilization than the Indians generally, because the mining and other implements found on the Ontonagon, in the ancient excavations, are precisely similar to those which are known to have been in use among the tribes of the Atlantic coast. The stone-hammers, made of oval pebbles, grooved about the middle for withes, which formed the handles, were the native instruments for breaking out pieces of copper on Lake Superior, and for breaking the hard rocks of Mooshead Lake for the arrow and spear-heads of the eastern Indians. Such hammers, together with half-finished stone scalping-knives, have been found both at Ontonagon and at Eagle River. The Indian miner also assisted the operation of breaking the rocks by kindling fires upon them, and hence the origin of the charred brands and coal that have been found around the battered and beaten projections of copper.

The Lake Superior was greatly revered by the Indians inhabiting its shores at the time of the early explorations of the Jesuit missionaries. Claude Allouez says, respecting this superstition: "The savages respect this lake as a divinity, and make sacrifices to it—on account, perhaps, of its magnitude, for it is 200 leagues long and 80 wide, or on account of its goodness in furnishing them with fishes, which nourish all these people where there is but little game. There are often found beneath the water pieces of copper, all formed, and of the weight of 10 and 20 pounds. I have seen them many times in the hands of the savages, and, as they are superstitious, they keep them as so many divinities, or as presents from the gods beneath the water, who have given them as pledges of good fortune. On that account, they keep the pieces of copper enveloped among their most precious furniture. There are some who have preserved them for more than fifty years, and others who have had them in their families from time immemorial, and cherish them as household gods."

The first Englishman that ever visited the copper region was Alexander Henry, who, after having his hair almost started out of his head at the frightful massacre of Michilimackinac, continued in the Superior country for several years, poking about among its ravines and precipices with a most refreshing indifference to danger. One or two extracts from his journal will show what he saw there.

"On the 19th of August, 1765, we reached the mouth of the Ontonagon River, one of the largest on the south side of the lake. At the mouth was an Indian village; and three leagues above, a fall, at the foot of which sturgeon, at this season, were obtained so abundant, that a month's subsistence for a regiment could have been taken in a few hours. But I found this river chiefly remarkable for the abundance of virgin copper which is on its banks and in its neighborhood.

"On my way back to Michilimackinac, I encamped a second time at the mouth of the Ontonagon River, and now took the opportunity of going 10 miles up the river with Indian guides. The object for which I most expressly went, and to which I had the satisfaction of being led, was a mass of copper of the weight, according to my estimate, of no less than five tons. Such was its pure and malleable state, that, with an ax, I was able to cut off a portion weighing a hundred pounds. On viewing the surrounding surface, I conjectured that the mass, at some period or other, had rolled down the side of a lofty hill which rises at its back." This copper rock has been removed to Washington, and may now be seen lying on the ground near the War Department.

That same enterprising explorer was also the first to organize a Lake Superior Mining Company. In 1770, Messrs. Baxter, Bostwick, and Henry built a barge at Point aux Pius, and laid the keel of a sloop of forty tons. They were in search of gold and silver, and expected to make their fortunes. The other partners in England were "His Royal Highness, the Duke of Gloucester; Mr. Secretary Townshend, Sir Samuel Tachet, Bart.; Mr. Baxter, counsel of the Empress of Russia, and Mr. Cruikshank; in America, Sir William Johnson, Bart., Mr. Bostwick, Mr. Baxter, and myself. A charter had been petitioned for

and obtained; but, owing to our ill success, it was never taken from the seal-office." Mr. Baxter sold the sloop and other effects of the company, and paid its debts, which certainly was a most commendable feature of their operations. Lake Superior seems then to have been abandoned, and its mineral resources forgotten. Since 1845, public attention has been again drawn toward the Superior country. Its mineral lands have been surveyed, affording tolerably accurate information of the localities where the ores of copper, and iron, and silver abound. A large number of mining companies have been organized, and some of them have gone into successful operation.

The belt of the trap-rocks on Keweenaw Point is three miles in width, in its narrowest part, seven miles in its widest. It underlies seven townships, or, more exactly, 217 sections of land, between Portage Lake and the extremity of the promontory. It is exceedingly rich in copper and silver. The country is broken, hilly, and irregular, and very much cut up by the streams. The soil is represented to be of an excellent quality—warm and fertile, as trappean soils generally are—and is covered with a heavy growth of hard-wood forest trees with some soft-wood. The forests are more open than those on the adjacent sandstone rocks, and the timber is more thrifty. The appearance of the trap-rock is quite singular; for the melted mass, when it was forced up from below, did not burst out in circular spaces, or through cylindrical chimneys, like lava eruptions of modern times; but intruded itself through chasms and fractures of the superincumbent rocks, frequently overflowing them, and spreading out between the strata, and existing in intervening masses, or beds.

At the Lake Superior Company's mines, shaft number 2, passing into the western side of the vein, was very rich in copper and silver at the surface, when it immediately bordered upon the leader, and impoverished as it left it in descending. So, after working downward, for a time, through barren rock, "the miners sent off a level toward the river, with the intention of striking the vein under the stream; but, to their great surprise, opened into a deep and wide ravine, or ancient channel of the river, filled with great masses of copper, lumps of copper and silver mixed, small globules of pure silver—all rounded and worn by the action of running water, and mixed with sand, gravel, and pebbles. A single mass of silver was obtained from this ravine, which weighed more than six pounds, and was worth \$130. That lump of silver is now in the cabinet of the United States Mint, at Philadelphia. Masses of copper were also found in that ravine weighing 1,000 pounds. These were exported to France.

The Cliff Mine, belonging to the Boston and Pittsburgh Mining Company, is situated on the south-west branch of Eagle River, three miles from the office of the Lake Superior Company. "The Cliff Mine," says Mr. Jackson, United States Geologist, "is one of the most remarkable known, for the enormous masses of native copper it contains. One of the masses, now got out, is estimated at 50 tons weight. It is cut by means of steel chisels, driven by blows of a heavy sledge-hammer—one man holding the chisel, while the other strikes with the sledge; a groove

is mortised out across the mass of copper, and then a series of ribbons of it, about a quarter of an inch in thickness, are cut out, until the channel thus mortised divides the mass. The copper is perfectly malleable and ductile, and is very tough. The masses of solid copper are very pure, and ought to yield more than ninety per cent. of refined metal."

To get out such huge masses of copper, a place is sought in the shaft where a hole may be bored into the rock, and then firing a heavy blast. This starts the copper from the wall of rock, and sometimes removes it entirely. It is then cut up with chisels. This vein varies from two to four feet in width, and increases in width and richness as it descends in the rock. The height of the cliff in which this vein is seen is nearly 300 feet, and the upper exposure of the veins, 213 feet. The top of the cliff is 700 feet above Lake Superior.

At the Copper Falls Mines, about 200 feet above the level of the lake, the shaft descends perpendicularly into the rock nearly to that depth. There is a vein of solid copper. The sheets of copper are of amazing dimensions. Mr. Jackson says: "One of the masses of copper got out was 20 feet long, 9 feet wide, and from 4 to 6 inches thick, and weighed, by estimation, 10 tons." The Copper Falls Mines are exceedingly rich in silver. In many parts of the vein, from \$25 to \$100 worth of silver is contained in 100 weight of rock. Mr. Jackson analyzed a rich specimen, which yielded 5 ounces of silver to 6 pounds of vein-stone.

The largest mass of copper that has yet been removed, was at the bottom of the Cliff Mine, and was estimated to weigh 80 tons. It was pure copper, having a density equal to that of the hammered copper of commerce, and much tougher than that which is obtained by artificial smelting.

The great national value of the copper mines of Lake Superior will be seen by comparing their capability for the production of metal with other copper mines in different parts of the earth. The following table exhibits the foreign mines, together with the annual yield of metal:

Sweden.....	1,000 tons.
Russia,	2,000 "
Hungary,.....	2,000 "
Hartz Mountains,	218 "
East Germany.....	148 "
Hesse,.....	500 "
Norway,.....	7,200 "
United Kingdom of Great Britain,.....	14,465 "
Mexico,.....	200 "

The principal landing-place on Keweenaw Point, to get access to the mines, is Eagle Harbor. The village occupies a beautiful site. The houses are built on the rising ground, in a magnificent grove of Norwegian pines. The harbor is a fraction less than a mile wide; the greatest depth of water, 100 feet; depth on the bar, 10 feet; and there it can be easily deepened to 16 feet, by blasting away the rocks. This

ought to be done for the safety of loaded steamboats, which frequently take shelter in the bay.

The Superior country is quite destitute of game; but the waters abound in fish of the choicest kinds. The streams throughout the iron region are alive with speckled trout. The lake fisheries will one day rival those of the ocean, both in extent and value. Isle Royale is a favorite place of resort for fishermen, who take there great numbers of the siskowit—the fattest and finest variety of the lake-trout family; also, lake-trout and whitefish. The siskowit has been known to attain to the weight of 25 pounds; and the lake-trout, 50 pounds. The siskowit has only to become introduced into the eastern market to take the place of all other fish, as a delicacy for the table of the epicure. The capability of the fisheries of the Superior country may be estimated by the quantities taken at one place, near Mackinaw, at which 10,000 barrels are packed annually. The preparations for packing are very simple. After being cleaned, the fish are laid, with the scales on, upon broad benches, and salted; then thrown into a box, or crate, with a grating at the bottom to drain. Sometimes a common wagon-wheel is used, suspended by a rod passing through the hub; the water passes off from the fish, between the spokes. After draining, the packing commences. Fish are important articles of food at the mines, and will continue to become more valuable as the business of mining increases.

The Superior region is a healthy country; but the climate is too cold and forbidding, and the winters too long, to attract emigrants, who prefer to cultivate the soil. In July the days are very warm; the nights, however, are cool. The changes in the temperature are very sudden and very great. It is no uncommon thing for the thermometer to fall forty degrees in twenty-four hours. Frosts occur about the 10th of September, sufficient to kill all vegetation. The snows attain to the depth of six feet, and remain to the last of May. Winter sets in early in October. During the fall months there are frequent and terrible gales of wind, and storms of rain and snow.

The Superior country will one day be erected into a Territory by itself, or admitted as a State. It will be, for all time, not only a mine of wealth to the Union, but also a nursery of a tough, hardy, and energetic race of men. The full development of its vast resources would require a population that will make it the great northern hive of America.—*Ferris.*

LAKE HURON.—This is one of the great lakes on the boundary between the United States and Canada. The extreme northern limit is the east end of the southern coast of the upper peninsula of Michigan, in latitude 46° north. The southern or lower peninsula of Michigan bounds it on the west. It is limited by the Canadian coast on the east, and by a group of islands, which extend around on the north side, and in part separate the lake from the Georgian and Manitoulin Bays, though these larger bays are in fact a part of it. These islands belong to Canada, with the exception of Drummond's, the most western. Lake Huron, including Georgian Bay, is estimated at 100 miles in width and 252 in length, with an area of 21,000 square miles. The

State engineers of Michigan report its elevation above the sea at 578 feet and its average depth at one thousand.

Lake Huron receives at the northern extremity the St. Mary's River or Strait, the outlet of Lake Superior, and also Mackinaw River or Straits, the outlet of Lake Michigan. It discharges its own surplus waters through St. Clair River, at its southern extremity, into Lake St. Clair.

Seventy miles north of the outlet is Saginaw Bay, running back into the land toward the south-west, a distance of sixty miles. Thunder Bay, which is much smaller, is 150 miles from the outlet. The shores of this bay are noted for the white pine lumber and the grind-stones obtained from the sandstone rocks. Presque Isle is twenty-eight miles further north. Here is another harbor. Hence to Mackinaw is seventy miles in a straight course. This island is famous as a trading-post, and for its port and fur trade. It has on its south side a deep and well-sheltered harbor, under high hills, upon which stands the United States fort. Mackinaw is also noted for its extensive fishing business, the lake in the vicinity abounding in an excellent quality of white-fish.

On the shores on the Michigan side of the lake, the rock formations are sandstones and limestones of the several groups from the Helderberg to the coal-measures. Benches of sand alternate with others of limestone shingle. The forests behind are often a tangled growth of cedar, fir, and spruce, in impenetrable swamps.

The season of navigation on Lake Huron is usually from the last of April or early part of May into December. The finest season, during which the waters often continue smooth, and the atmosphere mild and hazy, for several weeks, is the latter part of November.

LAKE ST. CLAIR.—This is a small lake lying between Michigan and Canada West. Its length is thirty miles, and its mean breadth twelve. In its widest part, it is twenty-four miles from shore to shore. Its area is 360 square miles, and its mean depth is twenty feet. It is 571 feet above the level of the sea, or six feet higher than Lake Erie. Through St. Clair River, which forms part of the boundary between Michigan and Canada, it receives the waters of Lakes Superior, Michigan and Huron. Its outlet is the Detroit River, connecting it with Lake Erie.

RIVERS.—Michigan is well watered, abounding in numerous small rivers, streams, lakelets, and ponds. The principal rivers are the Ontonagon and Tequamenon, flowing into Lake Superior; the Sheboygan, Thunder Bay, Au Sable, and Saginaw, into Lake Erie; and the St. Joseph, Kalamazoo, Grand, Muskegon, and Monistee, emptying into Lake Michigan.

CLIMATE AND FOREST TREES.—The climate of Michigan is one of extremes, yet much tempered by the lakes in its immediate neighborhood. In the southern peninsula the climate is comparatively mild, while in the northern, especially in the winter season, it is cold and rigorous. The mean annual temperature at Detroit (latitude 40° 20', elevation 580 feet,) from 1836 to 1854 was 47.25°; and at Fort

Brady, (latitude $46^{\circ} 30'$, elevation 600 feet,) from 1823 to 1854, 40.37° . These results illustrate the isothermal conditions of the two peninsulas, the difference in annual heat being nearly seven degrees Fahrenheit. The main distribution of the heat to the seasons in the same years was as follows:

PLACES.	SPRING.	SUMMER.	AUTUMN.	WINTER.
Detroit.....	45.89°	67.60°	48.67°	26.84°
Fort Brady.....	87.60°	62.01°	48.54°	18.37°

At Detroit the greatest difference in monthly mean in any one year was 49.97° (21.95° to 71.92°), and at Fort Brady 57.81° (13.19° to 71°). The average rain-fall at the two places was 30.07 and 31.35 inches respectively, and in the seasons as follows:

PLACES.	SPRING.	SUMMER.	AUTUMN.	WINTER.
Detroit.....	8.57	9.29	7.41	4.86
Fort Brady.....	5.44	9.97	10.76	5.18

The above facts show that the upper portion of Michigan is beyond the line of Indian corn, but in it the hardier grains mature. The southern produces Indian corn and the winter grains abundantly, and is the great agricultural district of the State. The soils in this portion are deep, chiefly a dark loam, often mixed with gravel and clay, and very fertile. The northern portion, with some exceptions, is rugged and has a poor soil. It is, however, well-timbered with white pine, spruce, hemlock, birch, oak, aspen, maple, ash, and elm. Much of the southern peninsula is occupied by oak openings and prairie, with a large portion of forest, in which walnut, sugar-maple, oak, hickory, ash, basswood, elm, linden, locust, dogwood, beech, sycamore, cherry, pine, hemlock, spruce, tamarack, cypress, cedar, and chestnut are the prevailing growths.

ANIMALS.—The principal wild animals in Michigan are the black bear, wolf, lynx, wild cat, panther, fox, marten, weasel, skunk, mink, otter, elk, deer, raccoon, squirrel, opossum, marmot, beaver, hare, and rabbit; but these are rapidly disappearing. The lakes and streams afford productive fisheries, among which are those of the far-famed whitefish.

THE STATE GOVERNMENT.—Michigan is governed under a constitution adopted August 5, 1850. Every white male citizen, and every male Indian, not a member of a tribe, twenty-one years of age, and having resided in the State three months, and in the district ten days next preceding an election, is entitled to vote and hold office. The general election is held on the Tuesday after the first Monday in November, biennially. The State Legislature consists of a Senate and House of Representatives—all elected from districts for two years. The legislative sessions begin on the first Wednesday in January in every second year, and are held in the odd years. The Governor is elected by the people at large for a period of two years. He must be thirty years of age, and have been a citizen of the United States for

five years, and of the State for three years next preceding. The Lieutenant-Governor is elected for the same term, and must have the same qualifications. He is *ex-officio* President of the Senate. The other administrative officers—Secretary of State, Deputy Secretary of State, Auditor-General, State Treasurer, Attorney-General, Superintendent of Public Instruction, and Commissioner of Land-Office—are also elected by the people for two years.

The Judiciary consists of a Supreme Court, Circuit Courts, County Probate Courts, and Justices' Courts. Municipal Courts are also established in Detroit and other cities. The Supreme Court consists of a Chief Justice and two Associate Justices, with a Reporter. The Circuit Court has a judge in each of the ten circuits, into which the lower peninsula is divided. The upper peninsula constitutes a single circuit, and has its own District Judge. The judges are all elected by the people.

HISTORY.—The word Michigan is said to be derived from the Chipewewa language, from the words *mitchaw*, great, and *sugiegan*, lake, a name formerly applied to both Huron and Michigan, but now restricted to the western lake.

The discovery and early settlement of Michigan are due to the French missionaries and fur-traders. The site of Detroit was probably visited as early as 1610. Soon after the middle of the seventeenth century trading-posts were established at Sault Ste. Marie, Michilimackinac (old fort), and Green Bay. In 1701 an expedition under Antoine de la Mitte Canillac founded Detroit. From this period until the erection of the country into a territory of the United States, there is little in the history of Michigan demanding special notice at our hands. It made slow progress, and came under the dominion of Great Britain, with other French possessions, in 1763.

On the expulsion of the French, the conspiracy, headed by the Indian chief Pontiac, and designed for the extermination of the whites, broke out and involved the settlements in bloodshed. The garrison of Michilimackinac was butchered, and Detroit underwent a long siege. On the treaty of peace which closed the revolutionary war, Michigan was not at once surrendered, and the Americans did not take possession of Detroit until 1796. From this time it was included in the government of the territory north-west of Ohio. When Ohio was admitted as a State in 1802, Michigan was annexed to the Territory of Indiana. The Territory of Michigan was organised in 1805, William Hall being its first Governor. Its inhabitants were exposed during the war of 1812 to great suffering. Detroit was taken by the British in August, 1812, under circumstances which led to General Hull, the American commander, being sentenced to death by a court-martial. The sentence, however, was not executed, and facts which have since come to light relieve his character from much of the aspersions cast upon it. Michilimackinac was also captured, and at Frenchtown, in January, 1813, a number of American prisoners were massacred by the savages. The British were soon afterward driven out of the Territory by General Harrison, and in October, 1814, a truce was concluded with the Indians.

The first land surveys entered upon in Michigan Territory were commenced in 1816, and in 1818 the lands were brought into market for public sale. The prosperity of Michigan dates from this period. In 1819 the Territory was authorized by act of Congress to send a delegate to that body, and the right of suffrage was extended, in this case, to all taxable citizens. In 1819, 1821, and 1836 the Indians made important territorial cessions, so that in a few years after the latter date, all the lower peninsula, and the greater part of the upper, were freed from Indian title. Up to 1823 the legislative power was intrusted to the Governor and Judges of the Territory; but in that year Congress passed an act transferring it to a council, consisting of nine persons selected by the President, from eighteen chosen by the citizens; and, by the same act, the term of the judges was limited to four years. In 1825 the council was increased to thirteen, selected as before; but two years later, the law was so altered that the electors could choose their councillors without the further intervention of the President or Congress. In May, 1835, a convention at Detroit formed a State Constitution, in which Michigan claimed a strip of territory also claimed by Ohio. For a time a conflict seemed inevitable; but in June, 1836, Congress passed an act admitting Michigan into the Union upon condition that she relinquished her claim to the disputed territory, in place of which the region known as the "Upper Peninsula," was assigned to her. These conditions were rejected by one convention, but accepted by another in December, 1836, and in January, 1837, Michigan was admitted into the Union.

COUNTIES.—The following is a list of the counties in Michigan, with their county towns so far as known, and also the population of each county, according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Alcona,		185	Hillsdale,	Hillsdale,	25,676
Allegan,	Allegan,	16,087	Houghton,	Houghton,	9,284
Alpena,	Alpena,	290	Huron,	Port Austin,	3,165
Antrim,	Elk Rapids,	179	Ingham,	Mason,	17,436
Barry,	Hastings,	18,858	Ionia,	Ionia,	16,682
Bay,	Bay City,	3,164	Isabella,	Mount Pleasant,	1,443
Berrien,	Berrien Springs,	22,378	Jackson,	Jackson,	26,671
Branch,	Cold Water,	20,481	Iosco,	Tawas City,	176
Calhoun,	Marshall,	29,654	Kalamazoo,	Kalamazoo,	24,646
Cass,	Cassopolis,	17,721	Kent,	Grand Rapids,	30,716
Cheboygan,	Duncan,	517	Keweenaw,	Eagle River,	
Chippewa,	Saut de Ste. Marie,	1,608	Lapeer,	Lapeer,	14,754
Clinton,	St. Johns,	18,916	Leelanaw,	Northport,	2,158
Delta,	Esconaba,	1,172	Lenawee,	Adrian,	38,112
Easton,	Charlotte,	16,476	Livingston,	Howell,	16,851
Emmet,	Little Traverse,	1,149	Mackina,	Mackina,	
Genesee,	Flint,	22,498	Macomb,	Mt. Clemens,	22,843
Gladwin,		14	Manitow,	St. James,	1,042
Grand Traverse,	Traverse City,	1,286	Manistee,	Manistee,	976
Gratiot,	Ithaca,	4,042	Marquette,	Marquette,	2,821
			Mason,	Lincoln,	881

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Menominee,	Menominee,		Ottawa,	Grand Haven,	18,215
Michilimackinac,		1,988	Presque Isle,		26
Midland,	Midland City,	787	Saginaw,	Saginaw City,	12,693
Monroe,	Monroe,	21,590	Saint Clair,	Saint Clair,	26,604
Montcalm,	Stanton,	8,968	Sanilac,	Lexington,	7,599
Muskegon,	Muskegon,	8,947	Schoolcraft,		78
Mecosta,	Big Rapids	970	Shiawassee,	Corunna,	12,849
Newago,	Newago,	2,760	St. Joseph,	Centerville,	21,262
Oakland,	Pontiac,	88,261	Tuscola,	Vassar,	4,886
Oceana,	Hart,	1,816	Van Buren,	Paw Paw,	15,224
Oscoda,		27	Washtenaw,	Ann Arbor,	85,686
Ontonagon,	Ontonagon,	4,568	Wayne,	Detroit,	75,547

FINANCES.—The receipts and expenditures of Michigan for the fiscal year ending November 30, 1865, are shown in the following table:

Balance in Treasury November 30, 1865.....	\$440,047 27
Receipts for the fiscal year 1865.....	1,954,818 68
Total available funds for 1865.....	\$2,394,868 48
Total payments for fiscal year 1865.....	1,925,964 14
Balance in Treasury December 9, 1865.....	468,899 29

During the fiscal year, 1865, the sum of \$279,591 was set apart for the several sinking funds authorized by law. The funded interest-bearing debt of the State was \$3,783,000, and the amount of the non-interest-bearing debt \$97,399.80, making a total of funded and fundable debt of \$3,880,399.80.

The funded and fundable debt of Michigan, at the beginning of the year 1867, was thus reported by the State Treasurer:

Sault Canal Bonds, sixes, due January 1, 1878.....	\$100,000
Renewal Loan Bonds, sixes, due January 1, 1878.....	216,000
Two Million Loan Bonds, sevens, due January 1, 1868.....	250,000
Two Million Loan Bonds, sixes, due January 1, 1878.....	500,000
Two Million Loan Bonds, sixes, due January 1, 1878.....	500,000
Two Million Loan Bonds, sixes, due January 1, 1883.....	750,000
War Loan Bonds, sevens, due January 1, 1886.....	1,111,500
War County Bonds, sevens, due May 1, 1890.....	468,000
Adjusted Bonds, past due.....	4,000
Full paid Five Million Loan, past due.....	12,000
War Loan Bonds, called in January 1, 1866.....	1,100
\$125,000 of unrecognized Five Million Loan Bonds, past due and adjusted.....	72,821
Total Bonded Debt.....	\$3,979,921
Deduct debt of January 1, 1861.....	2,888,842
Showing net increase of Bonded Debt during past six years.....	\$1,591,079

AGRICULTURAL PRODUCTIONS.—From the statistics of the State census taken in 1864, and published by the Secretary of State in 1865,

it appears that Michigan contained 35,995,520 acres of land, of which but 3,647,645 were improved, and but 12,086,660 returned as taxable. There were, if equally apportioned, about four and a half acres of improved land for every man, woman and child in the State. The following table gives the amount of the crops raised in Michigan in the two years immediately preceding the State Censuses of 1864 and 1864:

	CENSUS OF 1864.	CENSUS OF 1864.
Wheat, acres.....	478,571	841,881
Wheat, bushels.....	7,027,922	9,687,627
Corn, acres.....	827,956	427,529
Corn, bushels.....	7,680,658	11,007,384
Other grain, bushels.....	2,294,426	4,195,244
Potatoes, bushels.....	2,917,494	4,059,271
Hay, tons.....	496,041	843,846
Pork, pounds.....	11,258,841	23,187,002
Butter, pounds.....	7,894,806	13,886,452
Cheese, pounds.....	779,530	1,680,945
Sugar, pounds.....	1,611,462	4,044,399
Horses.....	91,584	176,083
Work oxen.....	67,083	60,643
Milch cows.....	189,200	232,188
Other neat cattle.....	141,253	210,880
Sheep.....	964,333	2,053,363
Swine.....	239,832	325,289
Mules.....	106	1,116

Michigan promises to become a great apple-growing State. The shipments in 1865 were estimated at 410,000 barrels, which, at an average price of \$3.50 per barrel, would amount to nearly \$1,500,000. They were sent to all parts of the country, the winter fruit going chiefly to the Eastern and Middle States.

The wheat crop of Michigan, for 1863, averaged but 11.5 bushels to the acre, being much below the average yield. The hay crop, the next in value, was worth, for 1863, more than \$15,000,000. The average amount of butter was 59 lbs. 9 oz., and of cheese, 6 lbs. 13 oz. Sorghum and imphee are not particularly mentioned in the returns; but the total manufacture of sugar in 1864 was 4,044,399 lbs., or more than five pounds for each inhabitant.

The number of sheep in 1864 had nearly doubled since the taking of the previous State census, and in 1863 the average yield per head was 3 lbs. 8.5 oz., or nearly one pound greater than in the whole country in 1859. There were in 1863, 2,053,363 sheep in the State, the clip from which amounted to 7,294,934 pounds, or nearly one-tenth of the whole quantity produced in the United States. This shows an annual increase of 796,769 pounds from 1859. The clip of 1864 was estimated at 1,000,000 pounds more than that of 1863. From these facts, Michigan seems destined to take a front rank among the wool-growing States of the Union.

The value of the fisheries in Michigan for 1864 was estimated at \$100,000. The fish taken were principally whitefish.

LUMBER.—The following table exhibits the lumber product, which is one of the chief sources of wealth possessed by Michigan:

	1864.	1864
Number of saw-mills.....	922	1,078
Persons employed.....	4,679	7,747
Feet of lumber sawed.....	892,920,714	621,477,904
Capital invested.....	\$2,442,578	\$6,109,070
Value of product.....	\$3,273,086	\$8,363,550

A number of mills made no returns. Adding the number of feet sawn by these to the above figures, the annual amount of lumber produced in Michigan was estimated by the Secretary of State at nearly 8,000,000 feet. Of this amount upward of 3,000,000 came from the Saginaw River district.

MINING PRODUCTS.—The statistics of mining products in the last State census of Michigan were not complete at our latest information. It appears, however, that 273,000 tons of iron ore were produced in 1863, an amount only exceeded by Pennsylvania in 1860. Between 1854 and 1864 the number of copper mines increased nearly 120 per cent., and the amount of copper mined over 180 per cent. The following is a statement of the shipments of copper during 1865:

	TONS.	POUNDS.
Portage Lake District.....	4,596	856
Keweenaw District.....	3,234	1,673
Ontonagon District.....	2,140	845
Total shipments.....	9,971	3,874

There had been in each district a considerable increase over the product of 1864, the greatest being in the Keweenaw district.

There were produced in the Saginaw Valley in the year 1864, 488,189 barrels of salt, valued at the shipping point at \$2.25 per barrel, or \$198,425.

POPULATION.—In 1860 the population of Michigan consisted of 742,289 white and 6,823 colored inhabitants. Total, 749,112, showing a ratio of increase on the census of 1850 of 88.38 per cent. By the State census, taken in 1864, the total population was 803,145—a gain of 54,033 on the national census of 1860. The total vote for Governor in 1866 was 164,454.

CITIES AND TOWNS.—*Lansing*, the capital of Michigan, is in Ingham County, and is situated on the Grand River, 110 miles north-west of Detroit. Its population in 1860 was about 5,000. It is surrounded by a fertile country, abounding in timber and coal. Supplied with water-power by the river, it has an active and increasing trade. The State-house is a large and handsome building, erected on an eminence fifty feet above the river. The city has a House of Correction for juvenile offenders. It is the seat of a Female College, and of an Agricultural College, with a farm of 700 acres attached. It had in 1860 ten churches, one bank, two weekly newspapers, two breweries, five carriage factories, two grist-mills, two tanneries, five hotels, two planing-mills, and three saw-mills. Lansing became the capital of the State in 1847, but was not incorporated as a city till 1859.

Kalamazoo is the county town of Kalamazoo County, and is situated

on the left or west bank of the river of the same name, about 65 miles from its mouth, and 143 miles west from Detroit, by the Michigan Central Railroad, which connects it with that city and Chicago. The population in 1864 was 6,897. It lies in the midst of a fertile and beautiful country, and is laid out with broad streets, shaded by fine oak-trees. It contains Kalamazoo College, an institution for students of both sexes, the Michigan Female Seminary, the State Asylum for the insane, a union school, and various other literary and benevolent institutions. It had in 1860 two weekly newspapers, ten churches, a flour-mill, an iron foundry, a machine-shop, three manufactories of agricultural implements, one manufactory of piano-fortes, and one of soap and candles, a tannery, and three planing-mills.

Jackson, the capital of the county of that name, is situated on the west bank of the Grand River, near its source, and at the junction of the Michigan Southern and Northern Indiana Railroad with the Michigan Central. It is 70 miles west from Detroit. The river furnishes valuable water-power, and there are several mills and factories in operation. The Michigan State Penitentiary is located at Jackson, inclosing an area of eight acres. The main building is 500 feet long, 57 broad, and 44 feet high. The city is lighted with gas. There is a mine of bituminous coal within the city limits, and another a few miles distant. The population of Jackson in 1864 was 6,544.

Adrian, the capital of Lewancee County, is situated on a tributary of the Raisin River, 70 miles west-south-west of Detroit. The Erie and Kalamazoo Railroad was constructed in 1838, uniting Adrian with Toledo, 32 miles distant. The Michigan Southern Road passes through the former place. Adrian commands the trade of an extensive grain-growing region. The stream on which it stands furnishes valuable water-power, which is used for mills and other purposes. Population in 1864, 7,044.

Ann Arbor, the capital of Washtenaw County, is situated about 40 miles west of Detroit, on the Huron River and Michigan Central Railroad. The town is regularly laid out, and well built, and its site is pleasant and healthy. It is the center of an important agricultural district. It has a brisk trade, and manufactories of various kinds, the motive power of which is supplied by the river. The town is the seat of the State University. Its population in 1864 was 5,731.

Ypsilanti is in Washtenaw County, on the Huron River and the Michigan Central Railroad, 30 miles west by south from Detroit, and 254 from Chicago. Its population in 1860 was about 4,000. It is pleasantly situated in the midst of a rich and populous agricultural district, and is the seat of the State Normal School. It has numerous large manufacturing establishments.

Detroit is the chief town of Michigan, and the capital of Wayne County. It is situated on the north-west side of Detroit River or Strait, extending along the river nearly four miles. The center of the city is about seven miles from Lake St. Clair, and about eighteen from Lake Erie; eighty miles east-north-east from Lansing, and 302 west of Buffalo. It is in latitude 42° 20' north, and longitude 82° 58' west

from Greenwich. The river runs from Lake St. Clair to a point just below the city, in a direction about 30° south of west, thence it runs nearly south to Lake Erie, a distance of fifteen miles. The original bed of the river, before it was narrowed by the docking out, was from 48 to 52 chains in width; but from the docks of the central portion of the city to the opposite docks of Windsor, in Canada, it is only about half a mile. The depth of the river varies, averaging about 32 feet. The descent from Lake St. Clair to Lake Erie is about six feet, or three inches to the mile. The river rises and falls with the surfaces of the great lakes, of which it is a connecting link, the average annual variation being about three feet. The waters of the river and the lakes rise during a succession of wet seasons, and fall during a succession of dry ones. The Detroit River has a uniform current, and is little affected by floods, droughts, dams of ice, or other obstructions.

Where the principal part of the city is situated, the ground rises gradually from the river 20 or 30 feet, at the distance of 15 to 30 rods from the river bank; it then falls off a little, and again rises gradually to 40 or 50 feet above the river. The whole country, for more than 20 miles back of the river, is exceedingly level, rising gently at the rate of about five feet in the mile. The Detroit River was visited by the French as early as 1610; but the first permanent settlement on the site of the present city was made in 1701, by a party under Antoine de la Motte Cadillac. It fell into the hands of the British in 1760, and was ceded with the country to the United States, by the treaty of peace of 1783. Nearly the whole town was burned in 1805, after which its plat was changed under the act of Congress in 1806.

A portion of the city is regularly laid out, the streets running parallel with the river, and crossing each other at right angles, though there are numerous irregularities. The streets and avenues vary in width from 50 to 200 feet. The inhabitants are supplied with water taken from the river opposite the upper part of the city, and distributed from a reservoir by means of iron pipes to all parts of the city. The public buildings in the city are numerous, and are much admired for their beauty and finish, especially some of the public school-houses. Several of the churches are large and splendid; there are many spacious and beautiful stores, quite a number of large and elegant private dwellings, and several extensive hotels.

The United States Government made five great leading roads (post roads) in Michigan, while it was yet a territory, all diverging from Detroit. The Michigan Central Railroad was finished to Ypsilanti, 30 miles from Detroit, in 1837; the Ann Arbor, 38 miles, in 1839; to Kalamazoo, 145 miles, in 1845; and to Chicago, 282 miles, in 1851. The railroad from Detroit to Toledo, 60 miles, was completed in 1857, connecting at Monroe with the Michigan Southern Road. The Detroit and Milwaukee Road, from Detroit to Lake Michigan, opposite Milwaukee, was opened for travel in 1858; and a road from Detroit, to the foot of Lake Huron, opposite Port Sarina, the termination of the Grand Trunk Railway in Canada, was finished in 1859.

Detroit is the great concentrating point of the produce, commerce,

banking, and heavy business of the whole State. The retail and wholesale trade of the city are both very large. The sawing of lumber is a great branch of industry. In 1860 there were within the city limits nine large steam saw-mills, which cut from three to eight million feet each per annum, making a total of about forty million feet annually of pine lumber, the logs being floated down to the mills from Lake Huron, and the creeks and streams which fall into Lake St. Clair River. Ship and boat-building is also an important branch of business. There are extensive foundries, machine-shops, and factories of various kinds. The population of Detroit, by the census of 1860, was 45,619, and by the State census of 1864 it had increased to 53,179.

Grand Rapids, the capital of Kent County, is situated on the rapids of Grand River, 33 miles from Lake Michigan, and 60 miles north-west from Lansing. Its population in 1864 was 9,770. It is on the Detroit and Milwaukee Railroad, and its distance from Detroit by rail is 157 miles. Steamboats connect it with the lake, and the Rapids supply it with abundant water-power, so that it is one of the most thriving trading and manufacturing cities in the State. Salt, gypsum, limestone, and pine timber are plenty in the vicinity. The city is built on both banks of the river, which is here about 100 feet wide. Its situation is healthy and pleasant. On the west bank of the river are several Indian mounds. The city was first settled in 1833, and incorporated in 1850.

Grand Haven, the capital of Ottawa County, is situated on Lake Michigan, near the mouth of the Grand River, 32 miles north-west of Lansing, and 92 from Detroit by railroad. It is the western terminus of the Detroit and Milwaukee Railroad, which has here an immense depot, and a pier 3,000 feet long extending into the lake. Steamers cross every 12 hours to Milwaukee, and there are lines of steamers to Chicago, Buffalo, and Detroit. The principal articles of export are timber, staves, shingles, fish, leather, gypsum, stucco-lime, and flour. The exports in some years prior to 1860 exceeded \$1,000,000 in value. Population in 1860, from 3,000 to 4,000.

TEXAS.

TEXAS, with the exception of Florida, now forms the southernmost portion of the United States. It is bounded on the north by New Mexico, the Indian Territory, and Arkansas; on the east by Arkansas and Louisiana; on the south-east by the Gulf of Mexico; and on the south-west and west by Mexico and New Mexico. The Red River separates it in part from the Indian Territory and Arkansas, the Sabine from Louisiana, and the Rio Grande from Mexico. This State lies between 25° 50' and 36° 30' north latitude, and between 93° 36' and 107° west

longitude. Its shape is very irregular, but its extreme length from south-east to north-west is more than 800 miles, and its greatest breadth from east to west about 750 miles, including an area of 237,504 square miles—an amount of territory nearly six times that of the State of Pennsylvania, the greater part of which is composed of soil of great agricultural capabilities.

FACE OF THE COUNTRY.—This great State embraces every variety of surface, mountain, plain, hill, and desert within its limits. In the south-east, along the coast, is a level belt of land from 30 to 60 miles in breadth, which is succeeded by an undulating and prairie country, occupying another belt of from 150 to 200 miles in width, which is followed in the west and north-west by the mountainous region and the table-land. The extreme north is invaded by the Great American Desert, which extends perhaps about 60 miles within the boundary of Texas. According to Mr. Bartlett, the plateau of Texas, including part of New Mexico, extends from 30° to 34° north latitude, and from the Rio Grande east for 300 miles. The north portion, called Llano Estacado, or "Staked Plain," is 2,500 feet above the sea. This broad district is destitute of forest-trees and shrubbery, except along the margins of the streams, which even there never extend 100 yards from the banks. Just after rains a short, stunted grass springs up, but speedily becomes dry, affording little nourishment. In this region rise the Red, Brazos, and Colorado Rivers. About 29° 30' north latitude, the table-land breaks off into spurs, which descend to the prairies. The rivers have generally alluvial bottoms of from 3 to 20 miles in width, which are of great fertility, and heavily timbered. The belts referred to above run across the State in a direction nearly north-east and south-west, so that almost all the north part of eastern Texas is included in the second division, or the undulating country. Little is known of the elevated lands of the west and north-west, as they are yet the home of few white men except the hunters, who pursue its buffaloes and other wild animals. It is, however, represented as being a well-watered and fertile region. A low range of mountains, called the Colorado Hills, runs in a north and south direction, east of the Colorado River; indeed, the whole section of the State in the same parallel, between the Colorado and Brazos Rivers, is broken with low mountains. Between the Colorado and the Rio Grande, and north of the sources of the Nueces and San Antonio, the country is crossed by broken ranges of mountains running in various directions, but of whose altitude and character we have little reliable information. They appear, however, to be outlying ridges of the great Rocky Mountain chain. Of these the Organ, Hueco, or Waco, and Guadalupe Mountains extend from the north-west extremity of Texas, where they terminate in a north direction into New Mexico. According to Bartlett, the first are about 3,000 feet above the Rio Grande, and the last the same altitude above the plain.

GEOLOGY.—That part of Texas which lies within about 200 miles of the coast, and perhaps further inland, appears, says Mr. Bollaert, in a paper read before the Royal Geographical Society, to have been gradually uplifted from the bed of an ancient sea, into which the great rivers

of that period poured their waters, charged with the detritus of the secondary rocks. This detritus was gradually deposited in sedimentary beds at the bottom of the sea, and these deltas at length uniting, form the superficial accumulations of the level and undulating lands. This appears to be confirmed by the fact that the soils in the vicinity of the great rivers are distinguished by the peculiar ingredients brought down by the freshets of the present day. A vast belt of gypsum, (sometimes 100 miles in width,) extending from the Arkansas to the Rio Grande, passes across the north-west portion of the State. In the mountains and hills of the north-west, we have primitive formations of granites, porphyries, etc. Middle and southern Texas seem to be composed of rich surface soils, overlaid in the tertiary strata with its peculiar fossils; then follow the oolitic systems, sandstone, and perhaps the new red sandstone. A series of measurements give the following elevations: Galveston, 10 feet; Houston, 60 feet; San Felipe de Austin, 200 feet; Columbus, 250 feet; Gonzales, 270 feet; San Antonio de Bejar, 360 feet; head-waters of the San Antonio, 400 feet; Rio Frio, 450 to 500 feet; Cibolo River and head-waters of the Leona River, 550 feet; 1st Sabinas, 700 feet; 2d Sabinas, 800 feet; Guadalupe River, 1,000 feet; Llano Estacado, 2,450 feet; and Guadalupe Mountains, 3,000 feet.

MINERALS.—Texas abounds in minerals. Lying as she does in close proximity to the gold and silver regions of Mexico and New Mexico, it is probable that she may develop in future rich supplies of the precious metals. This, however, is not left entirely to conjecture, as silver mines are known to have been worked at San Saba, and discoveries of the same metal have been made upon the Bidais River. In the spring of 1853, the country was agitated by the report of the discovery of gold mines west of the Colorado River, between it and the San Saba Mountains, and north of the Llano River, but these reports have not been confirmed, at least as to its existence in any considerable quantities. According to Haldeman's revised edition of Taylor's work on the Coal Regions of the United States, coal exists on the Trinity River, 200 miles above Galveston; in the vicinity of Nagadoches, on the Brazos, (in abundance;) near the city of Austin, and on the Rio Grande, south-west of Bexar. It is believed that a belt, distant about 200 miles from the coast, extending south-west from Trinity River to the Rio Grande, contains this valuable mineral in various places. Iron is found in many parts of the State; there are, also, salt lakes and salt springs, copper, copperas, alum, lime, agates, chalcedony, jasper, and a white and red sandstone. A pitch lake, 20 miles from Beaumont, deposits of niter and sulphur, and fire clay, are among the minerals. "Formations of secondary limestone, with others of carboniferous sandstones, shales, argillaceous iron ore, and bituminous coal-beds, are said to occupy a large portion of the interior of Texas. Westward of these occur the inferior and silurian strata, trilobite limestone, and transition slates. Beyond all the basaltic and primary rocks of the Rocky Mountains arise; while north is the great salt lake of the Brazos, and a vast red saliferous region. An immense bed of gypsum, the largest known in North America reaching from the Arkansas to the Rio Grande River,

traverses the north-west portion of Texas. Mineral springs abound. Among the most important are the Salinilla Springs, (both white and salt sulphur,) near the Trinity River, in Walker County; a spring similar to White Sulphur in Virginia, near the Bidais River; a blue sulphur spring, also, in Walker County; a mineral spring near the Chilo, 30 miles from Bexar, formerly of great repute among the Mexicans for its medical properties; and a white sulphur spring near Carolina, in Montgomery County.

RIVERS, BAYS, SOUNDS.—The coast of Texas is lined with a chain of low islands, which form a series of bays, sounds, and lagoons; the most important of which are Galveston, Matagorda, Espiritu Santo, Aransas, and Corpus Christi Bays, and Laguna del Madre. Commencing at Galveston Bay in the north-east, they lie along the Gulf of Mexico in the order in which they are named. Galveston Bay, the largest of these, extends about 35 miles inland from the Gulf of Mexico, in a direction nearly north. Matagorda Bay, 60 miles long by 6 to 10 wide, and Laguna del Madre, 90 miles long by 3 to 6 wide, are sounds rather than bays, and run nearly parallel with the shore. The inlets to these are much obstructed by bars; Galveston Inlet, the best, is said to have but 12 feet water, the entrance of Matagorda Bay 11 feet, and that of San Luis but 10 feet. Aransas Bay extends in a north-east and south-west direction about 25 miles, by about 12 miles in width; Corpus Christi Bay, 40 miles from north to south, by 20 miles from east to west; and Espiritu Santo is 20 miles long by 10 wide; Copano Bay, opening into Aransas, is 20 miles long by 3 wide. A writer in "De Bow's Resources in the South and West," however, says: "Steamships of 1,200 to 1,500 tons, and sail vessel of 1,000 tons, can enter the port of Galveston." Texas is crossed by several long rivers, which generally rising in the table-lands of the West and North-west, and pursuing a south-east course, discharge their waters into the Gulf of Mexico. Commencing with the Rio Grande, the largest river in Texas, 1,800 miles long, and which forms its south-west boundary, and proceeding along the coast, we have the Nueces, San Antonio, Guadalupe, Colorado, Brazos, Trinity, Neches, and Sabine, whose lengths in the order named are about 300, 250, 275, 800, 500, 400, 300, and 350 miles, as estimated by measurements on the map. The Red River rises in the north-west of the State, and forms a large part of the north boundary line. The Canadian, a branch of the Arkansas, crosses the north projection of the State. All of these are navigable to a greater or less extent, (depending on the wetness or dryness of the season, and on local obstructions,) the Sabine for about 150 miles; the Trinity, to Porter's Bluffs, latitude 32° 20'; the San Jacinto, 50 miles; the Brazos, to Sullivan's Shoals, near latitude 31° north; the Nueces, 100 miles; the Rio Grande, 400 miles; and the Red River, to Preston, latitude 34° north, and longitude 96° 20' west, (during high water.) The Colorado of Texas, one of the largest rivers which intersect the State, rises in the table-lands in the north-west part of Texas, and flows in a general south-westerly direction. After passing Austin, Bastrop, La Grange, Columbia, and other towns, it enters Matagorda Bay at the town of Matagorda. It

is navigable to Austin, 300 miles in the higher stages of water. There are a number of small rivers, or tributaries, navigable to some extent, and besides their value as channels of commerce, they afford in many instances excellent sites for mill-seats. There are no lakes of importance in Texas. Sabine Lake, an expansion of the river of that name, near its mouth, 20 miles long, is on the boundary of Texas and Louisiana. There is a salt lake near the Rio Grande, from which large quantities of salt are annually taken.

OBJECTS OF INTEREST TO TOURISTS.—Among the most remarkable known natural wonders of Texas is the pass of the Guadalupe Mountains in the north-west of the State, thus described by Mr. Bartlett: "We followed the intricacies of the Pass for six hours, winding and turning in every direction, now plunging into some deep abyss, now rising upon some little castellated spur, and again passing along the brink of a deep gorge, whose bottom, filled with trees, is concealed from our view. In one place the road runs along a rocky shelf, not wide enough for two wagons to pass, and the next passes down through an immense gorge, walled in by regularly terraced mountains of limestone."

The Castle Mountain Pass is scarcely less wild and interesting. The Waco Mountain Pass on the borders of Texas and New Mexico, is on the same grand scale. Deep barancas, canons or gullies, either worn by water or rent asunder by earthquakes, yawn to a depth of many hundred feet in its high table lands. Captain Marcy represents the Red River, near its source, as cutting its way through the solid rock in the north of Texas, in a canon or gorge 800 feet in depth. A fall of 120 feet in a perpendicular pitch is reported in one of the branches of the Colorado River, which falls in one unbroken sheet of 100 feet in width. Very large bones, (apparently of the mastodon,) immense horns, vertebrae, teeth, silicified wood, oysters, muscles, ammonites, (nearly two feet in diameter,) fish, encrinites, trilobites, and other fossils are found near San Felipe de Austin, Columbus, Bastrop, Webber's Prairie, Austin, Peach Creek, Brazoria, and many other places, but not all in any one locality. Silicified trees are particularly numerous in Houston County, mostly nearly perpendicular, inclining to the north, but some horizontal.

CLIMATE.—Texas seems to partake of a climate free from the extremes of both the torrid and temperate zones, producing in the north many of the products of the temperate, and in the south many of those of the torrid zone. While it shares the genial climate of Louisiana, it is free from its unhealthy swamp exhalations. The heats of summer are much mitigated by the refreshing breezes from the Gulf, which blow with great steadiness during that season. In November, however, the north winds set in and sweep down the plains, with but little variation, during the months of December and January. These winds have doubtless a purifying effect on the atmosphere, by sweeping off the exhalations of the river bottoms and the newly-broken soil. The settler on the prairies of the interior is thus freed from the miasma that exerts usually so pestilential an influence on the "clearings" of new countries and in marshy districts. Ice is seldom seen in the south

part; and during the summer months the thermometer averages about 80°, and in winter from 60° to 75°.

SOIL AND PRODUCTIONS.—The soil is equally favorable with the climate; for while every variety is found, from the cheerless desert to the exuberantly fertile river-bottoms, the general character is that of great fertility. The mesquit grass in west Texas yields a fine soft sward, which is green even in winter, and affords, beyond all comparison, the best natural pasture in the world. Cotton, the great staple, grows well in almost every part of the State, and that grown near the gulf is considered equal to the celebrated sea-land. Indian corn, the other great staple, is also readily raised in almost every part. Two crops a year are planted, one in February and the other about the middle of June, yielding often 75 bushels to the acre of shelled corn. In the undulating country, wheat, rye, oats, buckwheat, and the other small grains flourish. The level country is well adapted to the production of sugar, though it is not yet extensively cultivated. Tobacco, of a quality claimed to be equal to that of Cuba, flourishes with little care, and is doubtless destined to form one of the staples of Texas. Indigo, of a superior kind, is indigenous to the State. Rice can be cultivated to any extent, and the soil is well adapted to flax and hemp. The grape, mulberry, and the delicious vanilla are indigenous and abundant. The nopal, (famous for the production of the cochineal insect,) the mesquit-tree, (a species of locust, very valuable for fencing and building,) and the tea-tree, (a good substitute for the Chinese shrub,) are all native to Texas. The cacti and agave are abundant west of the Nueces. Cayenne pepper is grown in vast quantities. The fruits are no less abundant and various than its other products: here we have a peach superior to that of the North, the nectarine, the quince, the fig, the plum, the crab-apple, and a great variety of berries. Oranges, lemons, limes, and melons grow well, as do all the garden vegetables. Hickory, walnut, and pecan-nuts are plentiful. Shrubs and flowers are in profusion, and of great beauty and variety, and many of our North exotics and hot-house plants are indigenous to Texas; such, for example, as the gaudy dahlia. Here bloom asters of every variety, geraniums, lilies, trumpet-flowers, cardinal-flowers, wax-plants, mimosas, etc. In short, a Texas prairie in spring is the very paradise of a botanist, or indeed of any lover of the beauties of nature.

The forest-trees are live-oak, and other varieties of that noble tree, cedar, pine, palmetto, ash, walnut, hickory, pecan, mulberry, cypress, elm, and sycamore. The east portion and the river-bottoms are the most densely timbered. "Cross Timbers" is a wooded section, stretching, says Marcy, from the Arkansas River in a south-west direction through some 400 miles, with a width varying from 5 to 30 miles. The limits of this forest are very abrupt, and form, as it were, a wall against the further progress of the arid prairies. The trees in this consist principally of post-oak and black-jack, standing at such distances that wagons can pass between them in any direction.

ANIMALS.—Texas abounds in wild animals of different kinds. The buffalo still roams in the north-west of the State, and the wild horse or

mustang feeds in vast herds on its undulating prairies. Here, too, are deer, pumas, jaguars, ocelots, and wild cats, black bears, wolves, foxes, some pecaries, racoons, opossums, rabbits, hares, and abundance of squirrels. The prairie-dog, a species of marmot, burrows in the ground, and their communities extend for many miles. Mr. Bartlett mentions journeying for three days without for once being out of sight of them. Wild cattle are in abundance. Among the mountains of the west are found the graceful antelope, the mountain goat, and the moose, (the largest of the deer kind.) Of the feathered tribes there are many varieties to tempt the cupidity of the hunter, such as prairie hens, wild geese, wild turkeys, brant, teal, canvasback and common duck, pheasants, quails, grouse, partridges, woodcock, pigeons, turtle-doves, snipes, plovers, and rice-birds. Of birds of prey are the bald-headed and Mexican eagles, vultures, hawks, and owls. Of water-fowl, besides those mentioned above, are cranes, swans, pelicans, king-fishers, and water-turkeys. Of small birds, crows, blackbirds, starlings, bluejays, woodpeckers, redbirds, martins, swallows, and wrens. Of the birds noted for beauty of plumage are the parouquet, the oriole, the whippoorwill, the cardinal, and the sweet-toned mocking-bird. Of fish and reptiles there is also a great variety; among the former are the redfish, (a delicious fish, weighing 50 pounds,) the yellow, white, and blue codfish, sheepshead, mullet, flounders, perch, pike, suckers, and trout; and of the latter, alligators, gars, rattlesnakes, water, moccasin, coachwhip, copperhead, chicken, and garter snakes, and horned frogs and lizards. Of shell-fish are crabs, oysters, clams, muscles, crayfish, shrimps, and hard and soft-shelled turtles. Among the insects are the gadfly gnat, the cantharides or Spanish fly, the honey-bee, (in a wild state,) centipedes, and a large poisonous spider called the tarantula.

COMMERCE.—This State has facilities for both internal and foreign commerce. Her most fertile districts are crossed by large rivers more or less navigable by steamboats and by smaller boats, while her numerous bays form harbors for transacting her foreign commerce. It is true her rivers are obstructed by sand-bars and rafts in some instances, but these admit of removal. Although bars obstruct the inlets of her harbors, vessels of from 1,000 to 1,500 tons may enter the port of Galveston. The principal article of export from this State is cotton. Trains frequently leave San Antonio for Mexico, loaded with merchandise suitable for the demands of Chihuahua, Parras, and other north Mexican cities.

GOVERNMENT.—The executive power of Texas is intrusted to a Governor and Lieutenant-Governor, elected by the people, each for two years; the latter is *ex officio* president of the Senate. The legislative body is constituted, as usual in the United States, of a Senate, elected for 4, and a House of Representatives, elected for 2 years—both chosen by popular vote. The sessions of the Legislature are biennial, and held in December. Every male citizen of the United States (untaxed Indians and negroes excepted) who is over 21 years of age, and shall have resided in the State one year next preceding an election, or in the county, town, or district in which he offers to vote, shall be deemed a

qualified elector, except United States soldiers, marines, and seamen. The judiciary consists of a Supreme Court, composed of a chief and 2 associate judges; and of 20 District Courts, held twice a year in each county. There is also a county court in each county. All the judges of Texas are elected by the people for 6 years, but the Governor can, on address from two-thirds of each house, remove the judges of both courts.

HISTORY.—The present State of Texas formed, previous to the revolution of 1836, the whole of the Mexican province of Texas, together with portions of the States of Tamaulipas, Coahuila, Chihuahua, and New Mexico. In consequence of the inducements held out to settlers, an extensive emigration to this region from the United States commenced in 1821, which had swelled to sufficient amount in 1832 to induce the inhabitants to demand admission as an independent member of the Mexican Confederacy; which being refused, resulted in a declaration of independence, that, after various contests in arms, was completely achieved by the defeat and capture of the Mexican President, Santa Anna, at San Jacinto, in 1836. Up to 1845, Texas remained an independent republic, modeled after the Government of the United States. In 1846 it was admitted a member of the North American Confederacy, reserving the right to be divided into five States, with the institution of negro slavery. Disputes arising with Mexico as to the boundary, (Mexico claiming to the Nueces and the United States to the Rio Grande del Norte,) war ensued, in which General Taylor gained two battles within the limits of the present State of Texas. The treaty with Mexico, at the close of this war, assigned to Texas the Rio Grande as its south-west boundary. By the Compromise Act of 1850, the boundaries of Texas were somewhat modified, she conceding to New Mexico a portion of her northern territory, in consideration of \$10,000,000 to be paid by the United States Government.

The inhabitants of the west and north-west portions of Texas are subject to frequent inroads from the Camanches, Apaches, and other warlike tribes, who destroy property, murder, or carry into captivity, their defenseless victims, and drive off their horses, sheep, and cattle.

CITIES AND TOWNS.—*Galveston*, a port of entry, the seat of justice of Galveston County, and the most populous and commercial city of Texas, is situated on an island at the mouth of a bay of its own name, about 450 miles west by south of New Orleans, and 230 miles south-east of Austin city. Latitude $29^{\circ} 17'$ north, longitude $94^{\circ} 50'$ west. The Island of Galveston, which separates the bay from the Gulf of Mexico, is about 30 miles in length and 3 miles in breadth. The surface is nearly level, and has a mean elevation of only 4 or 5 feet above the water. The bay extends northward from the city to the mouth of Trinity River, a distance of 35 miles, and varies in breadth from 12 to 18 miles. The harbor of Galveston, which is the best in the State, has 12 or 14 feet of water over the bar at low tide. Galveston is one of the most flourishing ports on the Gulf of Mexico, and carries on an active trade. Steamboats make regular passages to New Orleans, and to the towns in the interior of Texas. Three or four

newspapers are published here. The city contains a fine market-house, a town-hall, about eight churches, and several large hotels. The private houses are mostly of wood, and painted white; the streets are wide, straight, and rectangular, and bordered by numerous flower-gardens. Railroads are constructed from Galveston to Houston and other points. First settled in 1837. Population in 1860, 7,307.

Houston, a city and the capital of Harris County, is situated at the head of steamboat navigation on Buffalo Bayou, 45 miles above its mouth on Galveston Bay, and 200 miles east-south-east from Austin. It lies on the left side of the bayou, surrounded by a fine grazing country. By steamboats it has an easy communication with Galveston, distant about eighty miles, and the principal shipping point for several of the neighboring counties. The Houston and Texas Central Railroad opens a communication between Houston and the northern parts of the State; a branch extends from Houston to the Buffalo Bayou, Brazos and Colorado Road, and the Galveston, Houston and Henderson Road, fifty miles in length, connects Houston and Galveston. Houston contains quite a number of churches and schools, several newspaper offices, iron-foundries, machine-shops, cotton-presses, and manufactories of various kinds. It was settled in 1836, and during the ensuing year was temporarily the seat of government. Its population in 1850 was 2,300; in 1860, 5,000 to 6,000.

San Antonio, or San Antonio de Bexar, the capital of Bexar County, lies on one of the head streams of the San Antonio River, 110 miles south-west of Austin. It has a United States arsenal, and Methodist, Presbyterian, and Roman Catholic churches. San Antonio has been the scene of several battles, including the massacre of the Texan patriots of the Alamo in 1836. It was originally settled by the Spaniards, and is one of the oldest towns in North America. The population in 1850 was 3,488; in 1860, it was 8,274. The San Antonio River is formed by the Medina and Salarbo Rivers, about 15 miles south-west of San Antonio, and flows into Espiritu Sante Bay, after a course of about 150 miles, generally to the south-west.

Austin, the capital of the State and of Travis County, is situated on the north side of the Colorado River, 230 miles west-south-west of Galveston. The Colorado is navigable in winter for steamboats to Austin. The environs of Austin are said to be highly picturesque. It contains the State and county buildings, and the sessions of the Supreme Court of the State are held here annually. The seat of the Texas Government was fixed at Austin in 1844.

Brownsville, formerly Fort Brown, is the capital of Cameron County, situated on the left bank of the Rio Grande, opposite Matamoras, and about forty miles from the Gulf of Mexico. It is easily accessible by steamboats; and its advantageous situation and trade with Mexico have rendered it one of the most prosperous and populous towns of the State.

Fort Alamo is in Bexar County, near San Antonio. Here, on the 6th of March, 1836, a small garrison of Texans bravely resisted a body of Mexicans, ten times their number, and perished to a man. Hence this spot has been called the Thermopylae of Texas.

COUNTIES.—The following is a list of the counties in Texas, with their several county-towns, and also the population of each county, according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Anderson,	Palestine,	10,398	Goliad,	Goliad,	3,384
Angelina,	Homer,	4,271	Gonzales,	Gonzales,	8,059
Atascosa,	Pleasanton,	1,578	Grayson,	Sherman,	8,184
Austin,	Bellville,	10,189	Grimes,	Anderson,	10,307
Bandera,	Bandera,	899	Hamilton,		489
Bastrop,	Bastrop,	7,006	Hardin,	Hardin C. H.	1,353
Bee,	Beeville,	910	Harris,	Houston,	9,070
Bell,	Belton,	4,799	Harrison,	Marshall,	15,001
Bexar,	San Antonio,	14,464	Hays,	San Marcus,	2,126
Blanco,	Blanco,	1,281	Henderson,	Athens,	4,595
Bowie,	Boston,	5,052	Hidalgo,	Edinburgh,	1,192
Bosque,	Meridian,	2,005	Hill,	Hillsboro,	8,653
Brazoria,	Brazoria,	7,148	Hopkins,	Tarrant,	7,745
Brasos,	Booneville,	2,776	Houston,	Crockett,	8,058
Brown,	Brownwood,	244	Hunt,	Greeneville,	6,630
Buchanan,		280	Jack,	Jacksboro,	1,000
Burdena,			Jackson,	Texana,	2,612
Burleson,	Caldwell,	5,683	Jasper,	Jasper,	4,087
Burnet,	Burnet C. H.	2,487	Jefferson,	Beaumont,	1,995
Caldwell,	Lockhart,	4,481	Johnson,	Buchanan,	4,805
Calhoun,	Port Lavaca,	2,642	Jones,		
Comanche,	Comanche C. H.	709	Karnes,	Helena,	2,171
Cameron,	Brownsville	6,028	Kaufman,	Kaufman,	8,986
Cass,	Jefferson,	8,411	Kerr,	Kerrville,	684
Chambers,	Willsville,	1,508	Kinney,	Fort Clark,	61
Cherokee,	Rusk,	12,098	Lamar,	Paris,	10,136
Clay,		109	Lampassas,	Lampassas C. H.	1,028
Collins,	McKinney,	4,264	Lavaca,	Hallettsville,	5,945
Colorado,	Columbus,	7,885	Leon,	Leona,	6,781
Comal,	New Braunfels,	4,080	Liberty,	Liberty,	3,189
Cooke,	Gainesville,	8,760	Limestone,	Springfield,	4,537
Coryell,	Gatesville,	2,666	Live Oak,	Oakville,	593
Dallas,	Dallas,	8,665	Llano,	Llano,	1,101
Dawson,		281	McCulloch,		
Denton,	Denton C. H.	5,081	McLennan,	Waco,	6,206
De Witt,	Clinton,	5,108	McMullen,	Nopal,	
Davis,	Linden,		Madison,	Madisonville,	2,238
Eastland,		99	Marion,	Jefferson,	3,977
Ellis,	Waxahatchie,	5,246	Mason,	Mason,	680
El Paso,	Isleta,	4,051	Matagorda,	Matagorda,	3,454
Ensinal,		43	Maverick,	Eagle Pass,	726
Erath,	Stephensville,	2,425	Medina,	Castroville,	1,838
Falls,	Marlin,	3,614	Milan,	Nashville,	5,175
Fannin,	Bonham,	9,217	Montague,	Montague,	849
Fayette,	La Grange,	11,604	Montgomery,	Montgomery,	5,479
Fort Bend,	Richmond,	6,148	Nachogdoches,	Nachogdoches,	8,292
Free Stone,	Fairfield,	6,881	Navarro,	Corsicana,	5,996
Frio,		42	Newton,	Burkeville,	8,119
Galveston,	Galveston,	8,229	Nueces,	Corpus Christi,	2,906
Guadalupe,	Seguin,	5,444	Orange,	Orange C. H.	1,916
Gillespie,	Fredericksburg	2,736	Palo Pinto,	Palo Pinto C. H.	1,524

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Panola,	Carthage,	8,475	Titus,	Mt. Pleasant,	9,848
Parker,	Weatherford,	4,218	Travis,	Austin,	8,080
Polk,	Livingston,	8,800	Trinity,	Sumpter,	4,392
Presidio,		580	Tyler,	Woodville,	4,525
Red River,	Clarksville,	8,535	Upshur,	Gilmer,	10,645
Refugio,	Refugio,	1,600	Uvalde,	Uvalde,	506
Robertson,	Owensville,	4,997	Van Zandt,	Canton,	3,777
Runnels,	Ft. Chadbourne,		Victoria,	Victoria,	4,171
Rusk,	Henderson,	15,808	Walker,	Huntsville,	8,191
Sabine,	Hemphill,	2,760	Washington,	Brenham,	15,215
San Augustin,	San Augustin,	4,094	Webb,	Laredo,	1,397
San Patricio,	San Patricio,	620	Wharton,	Wharton,	3,380
San Saba,	San Saba,	918	Williamson,	Georgetown,	4,529
Shackelford,		44	Wilson,	Sutherland Sp'gs,	
Shelby,	Center,	5,862	Wise,	Decatur,	3,160
Smith,	Tyler,	12,892	Wood,	Quitman,	4,968
Starr,	Rio Grande City,	2,406	Young,	Fort Belknap,	592
Tarrant,	Fort Worth,	6,020	Zapata,		1,248
Throckmorton,		124	Zavala,		26

STATISTICS OF COUNTIES.—The following interesting summary of statistics of the counties in Texas is gathered from the Texas Almanac for 1867:

The whole number of counties in Texas is 158. The average size of the counties is 1,242 square miles. The largest county is Presidio, having 26,600 square miles, and the smallest is Marion, having 320 square miles. Omitting these exceptional counties, and the average area of the counties is 1,085 square miles. The county of Harris is the largest county east of the Guadalupe. It embraces an area of 1,832 square miles, or 1,173,680 acres, the larger portion of which is arable land. Harris is also the wealthiest county in the State, having a total taxable wealth of \$9,571,440, and paying a poll tax of \$1,262. The next is Galveston, which is assessed for \$7,054,964, and pays a poll tax of \$556. Next comes Bexar, with \$5,352,528 worth of property, and a poll tax of \$2,751. Washington comes next, with \$4,913,328 of property, and Brazoria, with \$3,134,568. Burdena returns the smallest roll, having but \$91,430 of taxable property. McCulloch has the smallest population, having a poll tax of but \$64. The richest county in good land is Wharton, the average value of lands, good and poor, improved and wild, in which being \$9.20 per acre. Next is Fort Bend, with an average of \$9.07 per acre. Then comes Washington, whose lands are taxed at \$7.88; Brazoria, \$5.40; Grimes, \$5.04; Colorado, \$5, down to Webb, which county has 244,804 acres of land, valued at ten cents an acre, and dear at that.

The whole number of neat cattle in the State is 2,741,358, valued at \$13,283,025, or an average of about \$5 per head. The whole number of sheep is \$41,415, of which Starr County has 108,510, or nearly one-ninth of all the sheep in the State, though they are valued at only one dollar each, while Hopkins has 32,830, valued at \$90,534, or nearly \$3

each, and Madison and Navarro have between them 30,000 at over \$3 each.

POPULATION.—The number of inhabitants in Texas, according to the census taken by the United States in 1850, was 212,592. It had increased in 1860 to 604,215, showing a gain in ten years of 391,623. The number of white males in Texas in 1860 was 228,797, and of white females 192,497. Total number of whites, including 403 taxed Indians, 421,294. The number of free colored males was 181, and of free colored females, 174. Total number of free colored, 355. The number of male slaves was 91,189, and of female slaves, 91,377. Total number of slaves, 182,566. The total vote cast by Texas in 1860 for President was 62,657; and in 1866, for Governor, it was 60,682.

STATE DEBT.—The committee appointed by Governor Hamilton to inquire into the condition of the State Treasury of Texas, reported the total amount of the State debt in November, 1865, to be \$8,714,065.07. At the breaking out of the late civil war, Texas was entirely out of debt.

EDUCATION.—The State School Fund of Texas on the 1st of September, 1860, amounted to \$2,531,520.84. There was distributed to the counties for school purposes the sum of \$112,595.31; besides this, each county had 17,712 acres of land set apart for educational purposes. The State School Fund consisted of the sum of \$2,000,000 of the five per cent. United States bonds, set apart for that purpose, to which was added annually one-tenth of the State tax. The number of children in the State of school age—or from six to eighteen years—was 104,447. The amount of school money distributed for each was one dollar. There was also a university fund of \$111,000, the interest of which was steadily accumulating. There were numerous academies and female seminaries in the State, and three colleges, namely: Aranama College, under the control of the Presbyterians, located at Goliad, in Goliad County, and founded in 1852, having three professors, seventy-five students, and a library of 1,800 volumes; Austin College, also under Presbyterian control, located at Huntsville, in Walker County, having in 1858 five professors and over one hundred students, exclusive of those in the law department; and Baylor University, located at Independence, Washington County, founded in 1845, having in 1858 five professors and about one hundred and fifty students. There was also in 1860, at Buttermilk, in Fayette County, a military institute of considerable reputation. It was founded in 1856.

AGRICULTURAL STATISTICS.—According to the United States census of 1860, there were in Texas at that time 2,649,207 acres of improved land in farms, and 20,486,990 acres of unimproved land in farms. The cash value of the farms was \$104,007,639, and of implements and machinery used in agriculture, \$6,114,362. The number of horses in the State was 320,621; asses and mules, 63,000; milch cows, 598,086; working oxen, 172,243; other cattle, 2,733,267; sheep, 783,618, and swine, 1,368,378. The value of the live stock was \$52,892,934, and the value of the animals slaughtered during the year was \$5,218,987. The annual product of wheat was 1,464,273 bushels; rye, 95,012; In-

dian corn, 16,521,593; oats, 988,812; rice, 25,670; tobacco, 98,016 pounds; ginned cotton, 415,281 bales of 400 pounds each; wool, 1,497,748 pounds; peas and beans, 359,560 bushels; Irish potatoes, 168,937; sweet potatoes, 1,853,306; barley, 38,905, and buckwheat, 1,612 bushels. The orchard products of the year were valued at \$46,802. There were made 13,946 gallons of wine. The market garden produce was valued at \$55,943. There were made in the year 5,948,611 pounds of butter, 277,512 of cheese, 11,349 tons of hay, 449 bushels of clover-seed, 2,976 bushels of other grass seeds, and 122 pounds of hops. Texas produced in the year ending June 30, 1866, 590 hogs-heads of cane sugar, of 1,000 pounds each; 392,557 gallons of cane and maple molasses; 115,051 gallons of sorghum; 26,585 pounds of beeswax, and 550,708 pounds of honey. The value of the home-made manufactures for the same period was \$596,169. Agricultural labors were exceedingly prosperous in 1864. The crop of cotton was estimated at 500,000 bales, thus exceeding the crop of all the other cotton-growing States, which was estimated at 400,000 bales. The crop of corn in 1864 was estimated as sufficient to furnish a supply for two years. The cotton crop of Texas for 1866 was estimated at the United States Agricultural Department at 300,000 bales.

MANUFACTURES.—Texas, as a new State, has but few manufactures. Till her fertile bottoms and rich and beautiful prairies are occupied, capitalists will not be likely to devote much attention to manufacturing enterprises. Still, she has made considerable progress in this branch of industry. According to the last national census there were in Texas, in 1860, 910 manufacturing establishments, with a capital of \$3,850,000, consuming annually \$2,770,000 worth of raw material, including fuel; employing, on an average, 3,360 male hands and 110 female hands, and turning out annually manufactured products valued at \$6,250,000.

RAILROADS.—There is probably no State in the Union where railroads can be constructed with so little labor and expense as in Texas, the grading being comparatively easy; or where they are more needed to convey to market the vast product of hogs, sheep, cattle, flour, and grain, of which the home consumption is not adequate to take up a thousandth part. The railroads constructed and in running order in July, 1865, were the Houston and Texas Central, from Hempstead to Brenham's, thirty miles; the Buffalo Bayou, Brazos and Colorado Road, from Harrisburg to Alleyton, eighty miles; the Houston Tap and Brazoria Road, from Houston to Columbus, forty-five miles; the Galveston, Houston and Henderson Road, from Galveston to Houston, fifty miles; the Texas and New Orleans Road, from Houston to Beaurant, sixty-five miles, and that from Shreveport, La., to Marshall. Railroads were also in the course of construction from Brazos Santiago to Brownsville, about thirty miles, and from Indianola to Victoria, about forty miles.

I O W A .

THE State of Iowa is bounded north by Minnesota, east by the Mississippi, which separates it from the States of Wisconsin and Illinois, south by Missouri, and west by Nebraska and Dakota, from the former of which it is separated by the Missouri, and from the latter by the great Sioux River. It lies, (with the exception of a small projection in the south-east, between the Des Moines and the Mississippi Rivers,) between $40^{\circ} 30'$ and $43^{\circ} 30'$ north latitude, and between 90° and 97° west longitude, being about 300 miles in extreme length from east to west, and about 208 miles in breadth, including an area of 50,914 square miles, or 32,584,960 acres.

FACE OF THE COUNTRY.—The surface of Iowa is generally composed of rolling prairies, having nothing within its limits which approaches a mountain in elevation. The highest ground in the State is a plateau in the north-west, called "Conteau des Prairies," which enters the State from Minnesota. A small portion in the north-east, on the Mississippi, is rugged and rocky, and Table Mound, a conical elevation with a flat summit, three or four miles from Dubuque, is, perhaps, 500 feet high. The State, however, may be generally described as a rolling prairie, crossed by rivers whose banks are skirted with wood. There are said to be some swamps in the north-west portion of the State. The prairies, though sometimes twenty miles across, are rarely more than five or ten.

GEOLOGY.—The great coal-field of Missouri and Iowa, occupying the center and southern parts of the latter State, and extending out in the form of a semicircle, is surrounded on every side but the southern by a belt of upper carboniferous limestone. The Mississippi, on the south-east of the State, has its channel in a bed of the lower carboniferous limestone. The great drift deposits from Minnesota enter the north of Iowa. A narrow strip of the lead-bearing magnesian limestone lies on the Mississippi to the north-east, and is succeeded on the south-west first by a broad belt of upper magnesian, and then by a second of limestone of the Devonian period. The coal veins of Iowa are not nearly so thick as those of Illinois, being seldom more than four or five feet. The prairies of this State are sprinkled over with bowlders, some of them of immense size. One measured by Professor Owen was 500 feet in circumference, 12 feet high, and probably as many beneath the soil.

MINERALS.—Iowa is rich in mineral resources, and one-tenth of the great lead region of the upper Mississippi lies in this State. The ore is abundant, but lies deeper than on the east side of the river. Lead mines have been opened in Dubuque and Clayton Counties. Zinc and copper are also found in the same localities, and in connection with the lead. The great bituminous coal-field of Iowa and Missouri has an ex-

tent of near 200 miles from east to west, and 140 miles from north to south, within the former State, and occupying most of the central and southern portions. Copper has been discovered in Cedar County in considerable quantities.

RIVERS.—The rolling prairies of Iowa are furrowed by several important rivers, which cross it in a south-east direction, and help to swell the volume of waters in the great Mississippi, into which they discharge themselves. The Des Moines, the most important of these, has its sources in Minnesota, and, traversing the entire State, forms near its mouth a small portion of the south-east boundary. Its length is about 450 miles, 250 of which are navigable for light steamers at high water. The other rivers which flow into the Mississippi, proceeding in order northward, are the Skunk, Iowa, (the Red Cedar, a branch of the Iowa,) Wapsipinicon, Makoqueta, Turkey, and Upper Iowa. The Skunk is about 200, the Iowa 300, and the rivers last named from 100 to 200 miles in length. The Iowa is navigable for steamboats 110, and the Cedar River 60 miles. The Makoqueta and the Wapsipinicon have rapid currents, and furnish abundant water-power. The Missouri, and its tributary, the Great Sioux, form the west boundary. The Little Sioux, the next important tributary of the Missouri from Iowa, has a course of little more than 100 miles. There are a few small lakes in the north and west parts of the State.

OBJECTS OF INTEREST TO TOURISTS.—The principal claim of this new and as yet scarcely explored State on the attention of travelers must chiefly rest upon the beauty of its undulating prairies or its picturesque landscapes. There are, however, a few objects which may be classed among natural curiosities, of which the following are the most prominent: Numerous sinks or circular depressions in the surface of the ground, from 10 to 20 feet across, are found in different places, and particularly on Turkey River, in the north part of the State. Small mounds, from three to six feet high, and sometimes 10 or 12 in a row, are found on the same stream, within 10 or 15 miles of its mouth. A cave several rods in extent exists in Jackson County, from which flows a stream large enough to turn a mill. The Upper Iowa and Makoqueta Rivers have worn their channels through magnesian limestone rocks, leaving, on the southern banks, cliffs worn by the rain, frost, and winds into resemblances of castles, forts, etc.

CLIMATE, SOIL, AND PRODUCTIONS.—According to meteorological tables kept at Muscatine in 1851, by T. S. Parvin, Esq., the maximum of January was 46°, the minimum 16°; for February, maximum 52°, minimum 0°; March, maximum 78°, minimum 12°; April, maximum 70°, minimum 24°; May, maximum 82°, minimum 23°; June, maximum 85°, minimum 44°; July, maximum 92°, minimum 44°; August, maximum 85°, minimum 52°; September, maximum 91°, minimum 30°; October, maximum 79°, minimum 18°; November, maximum 51°, minimum 14°; December, maximum 56°, minimum 18°. Greatest heat, July 27, 92°; greatest cold, December 16, 18°; range, 110°. The Mississippi closed January 30th; opened February 21st. Last frost, May 24th; first in Autumn, September 28th. Rainy days, 101·53

of which were in May, June, and July; 20 snowy days, 55 cloudy, 88 clear, and 212 variable. The amount of rain that fell during the entire year was 72.4 inches. A frost in May killed most of the fruit. The peach-tree blossoms in April, fall wheat ripens in July, spring wheat in August, and Indian corn in October. The rivers are frozen over from two to three months on an average each winter. The soil of Iowa is generally excellent and of easy cultivation, with prairie and woodland intermingled. The valleys of the Red Cedar, Iowa, and Des Moines, (we quote Owen's Geological Report,) as high as latitude 42° or $42^{\circ} 31'$, presents a body of arable land, which, taken as a whole, for richness in organic elements, for amount of saline matter, and due admixture of earthly silicates, affords a combination that belongs only to the most fertile upland plains. After passing latitude $42^{\circ} 30'$ north, near the confines of the Couteau des Prairies, a desolate, knobby country commences, the highlands being covered with gravel and supporting a scanty vegetation, while the low grounds are either wet or marshy, or filled with numerous ponds or lakes, and where the eye roves in vain in search of timber. North of $41^{\circ} 30'$, and between the headwaters of the Grand, Nodaway, and Nishnabotona Rivers, the soil is inferior in quality to that south of the same parallel. The staples of this State are Indian corn, wheat, and live stock, besides considerable quantities of oats, rye, buckwheat, barley, Irish potatoes, butter, cheese, hay, wool, maple sugar, beeswax, and honey; and some rice, tobacco, beans, peas, sweet potatoes, orchard fruit, wine, grass seeds, hops, flax, and silk are produced.

FOREST TREES.—Iowa is in many places destitute of timber; along the rivers, however, it is well wooded, except near their sources. On the intervals between the rivers there are often prairies of from 15 to 20 miles, without so much as a bush higher than the wild indigo and compass-plant. The greatest scarcity of trees is north of 42° . Ash, elm, sugar, and white maple grow in alluvion belts of from one-fourth to one mile in width on the river banks. The other forest-trees are poplar, various species of oak, black and white walnut, hickory, locust, ironwood, cotton-wood, lime or basswood, and some pine on the northern parts of the State. Oak constitutes the larger part of the timber of the State. The peach grows too luxuriantly and blooms too soon to admit of its being cultivated to advantage. The grape, gooseberry, and wild plum are indigenous.

COUNTIES.—We give a list of the counties in Iowa, with their county towns, and also the population of each county according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Adair,	Fontanelle,	984	Benton,	Vinton,	8,496
Adams	Quincy,	1,538	Black Hawk,	Waterloo,	8,244
Allamakee,	Lansing,	12,287	Boone,	Boonsboro,	4,282
Appanoose,	Centerville,	11,981	Bremer,	Waverly,	4,915
Audubon,	Greira,	464	Buchanan,	Independence,	7,906

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Buena Vista,	Prairieville,	57	Kossuth,	Algona,	416
Butler,	Butler Center,	8,724	Lee,	Fort Madison,	29,232
Calhoun,	Lake City,	147	Lynn,	Marion,	18,947
Carroll,	Carrollton,	281	Louisa,	Wapello,	10,870
Cass,	Lewis,	1,612	Lucas,	Chariton,	5,766
Cedar,	Tipton,	12,949	Madison,	Winterset,	7,339
Cerro Gordo,	Mason City,	940	Mahaska,	Oskaloosa,	14,816
Cherokee,	Cherokee,	58	Manona,	Onawa,	832
Chickasaw,	New Hampton,	4,336	Marion,	Knoxville,	16,813
Clarke,	Osceola,	5,427	Marshall,	Marshalltown,	6,015
Clayton,	El Kader,	20,728	Mills,	Glenwood,	4,481
Clay,	Peterson,	52	Mitchell,	Mitchell,	3,409
Clinton,	Dewitt,	18,938	Monroe,	Albia,	8,612
Crawford,	Dennison,	888	Montgomery,	Frankfort,	1,256
Dallas,	Adell,	5,244	Muscatine,	Muscatine,	16,444
Davis,	Bloomfield,	18,764	O'Brien,	O'Brien,	8
Decatur,	Leon,	8,677	Page,	Clarinda,	4,419
Delaware,	Delhi,	11,024	Pecahontas,	Milton,	108
Des Moines,	Burlington,	19,611	Palo Alto,	Paoli,	182
Dickinson,	Okobojie,	180	Plymouth,	Melbourne,	148
Dubuque,	Dubuque,	31,164	Polk,	Des Moines,	11,625
Emmett,	Estherville,	105	Pottawatomie,	Council Bluffs,	4,968
Fayette,	West Union,	12,073	Poweshiek,	Montezuma,	5,688
Franklin,	Hampton,	1,309	Ringgold,	Mount Ayr,	2,923
Fremont,	Sidney,	5,074	Sac,	Sac City,	246
Floyd,	Charles City,	3,744	Scott,	Davenport,	25,959
Greene,	Jefferson,	1,374	Shelby,	Harlan,	818
Grundy,	Grundy Center,	798	Sioux,	Calliope,	10
Guthrie,	Panora,	8,058	Story,	Nevada,	4,061
Hamilton,	Webster City,	1,699	Tama,	Toledo,	5,235
Hancock,	Ellington,	179	Taylor,	Bedford,	3,590
Hardin,	Eldora,	5,440	Union,	Afton,	2,012
Harrison,	Magnolia,	8,621	Van Buren,	Keosauqua,	17,081
Henry,	Mt. Pleasant,	18,701	Wapello,	Ottumwa,	14,518
Howard,	New Oregon,	3,168	Warren,	Indianola,	10,281
Humboldt,	Dakota City,	332	Washington,	Washington,	14,235
Ida,	Ida,	43	Wayne,	Corydon,	6,409
Iowa,	Marengo,	8,029	Webster,	Fort Dodge,	2,504
Jackson,	Andrew,	18,493	Winnebago,	Forest City,	163
Jasper,	Newton,	9,883	Winneshiek,	Decorah,	13,942
Jefferson,	Fairfield,	15,038	Woodbury,	Sioux City,	1,119
Johnson,	Iowa City,	17,573	Worth,	Northwood,	756
Jones,	Anamosa,	13,306	Wright,	Grant,	663
Keokuk,	Sigourney,	13,271			

RESULTS OF THE STATE CENSUS.—The population of Iowa, according to the State Census of 1863, was as follows:

Total number of whites,	700,842
Total number of blacks,	1,820

Total population,	702,162
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According to the census of 1865, the population was as follows:

Total number of whites,.....	751,125
Total number of blacks,.....	8,607
Total population,.....	754,782

This last report does not include returns from the county of Winnebiek. The census having been taken in the early part of the year, the emigration which set in largely after the termination of the war is necessarily excluded. The total population of the State, at the beginning of the year 1866 was estimated by Governor Stone at 775,000, an increase of 100,000, or about 14 per cent., over the United States census of 1860. The following statistics are derived from the returns of the census of 1865:

The blind number 259, the deaf and dumb, 375, and the insane, 613. The total number of dwelling-houses in the State is 114,351. The number of acres of land inclosed is 5,327,053. Number of miles of railroad finished, 793. Value of agricultural implements and machinery, \$7,707,027; value of manufactures, \$7,100,465. The principal agricultural products are: spring wheat, 7,175,784 bushels; winter wheat, 116,965; oats, 15,928,777; corn, 48,471,133; potatoes, 2,730,811; rye, 662,388; and barley, 950,696 bushels. The number of tons of hay from tame grasses is 225,349, and from wild grasses, 713,119 tons. The tobacco crop yielded 753,626 pounds. The women in Iowa, in 1865, made 14,538,216 pounds of butter, and 1,000,738 pounds of cheese, the yield of 310,137 milch cows.

The crops of Iowa in 1865 were generally abundant, and that of corn was so much beyond the demand for home consumption, that in those parts of the State where timber is scarce, and the facilities for conveying crops to market unfrequent, it was employed as fuel. Seventy bushels of corn in the ear, which are equivalent to a cord of wood, cost but \$7, while wood, cut and sawed, was worth \$9.50 a cord. Not only was the corn cheaper, but it gave, it is said, considerably more heat than the same bulk of wood or coal. This, however, can be considered only an anomalous and temporary employment of this great staple of food, which will cease whenever the country is opened to commerce.

EDUCATION.—The schools of Iowa are in a flourishing condition. Out of 324,338 enumerated school children in 1865, there was an average attendance at school of 119,593 against 117,378 in the previous year. The University of Iowa, established at Iowa City, opened in 1866, with a largely increased attendance in its several departments. Connected with it is a medical school at Keokuk, and during 1865 a normal department, for the education of teachers, was added to the University.

FINANCES OF IOWA.—The assessed valuations of taxable property in the State, according to the lists for 1859 and 1865, compare as follows:

	1859.	1865.
Table land, acres,.....	26,949,271	28,041,061
Value of table land,.....	\$133,283,903	\$140,061,206
Value of town property,.....	81,859,165	27,481,897
Value of personal property,.....	83,174,282	57,578,116
Total valuation,.....	197,867,350	225,120,718

The taxes levied in 1859 averaged one mill and a half on the dollar, yielding \$296,735; in 1865 they were two mills on the dollar, yielding \$430,126.

The receipts from all sources, and disbursements of the Treasury for the years ending October 31, 1859, and for the two years ending October 31, 1865, are thus stated:

	TWO YEARS. 1859—1860.	TWO YEARS. 1864—1865.
Receipts, (including balances,).....	\$777,033 87	\$977,827 10
Disbursements on all accounts,.....	751,408 18	952,789 42
Leaving a surplus of.....	\$25,680 74	\$25,087 68

In the accounts for the two years, 1864—1865, are included the expenditures of the War and Defense Fund, amounting for the term to \$207,266, so that the actual expenses for State and other objects appear to have been less in the last than for the first financial period.

The indebtedness of the State is limited by the Constitution to \$250,000, except in cases of rebellion or invasion. When the civil war commenced the amount outstanding was \$200,000. It is now, or was recently, \$622,295.75. The resources of the State for the financial period of 1866 and 1867 were stated at \$1,611,002.87. Not more than one-half of this amount would be needed for ordinary expenses, so that the balance, when collected, would more than cover the State debt.

It is not necessary to enlarge on this subject, the above being sufficient to show the status of this young and flourishing commonwealth, lightly burdened and singularly free from vexatious taxes, and which has no impediment in the way of a prosperous future.

HISTORY.—Iowa was originally a part of the vast territories included under the general name of Louisiana. The first settlement of whites within its present limits was made by John Dubuque, a Canadian Frenchman, who, in 1788, obtained the grant of a large tract of land, including the present city of Dubuque and the rich mineral lands in its vicinity. Here he built a small fort, and carried on the business of mining lead and trading with the Indians, until his death in 1810.

In 1834 Iowa was placed under the jurisdiction of Michigan, and in 1837 transferred to that of Wisconsin. No settlement of importance other than that of Dubuque was made within the limits of what is now Iowa, until the spring of 1833, when several companies of Americans from Illinois, and other States, settled in the vicinity of Burlington. At a later period, settlements were made at other points along the Mississippi.

Iowa was organized as a separate territory on the 12th of June, 1838, and on the 4th of July following, the new Territorial Government was duly installed at Burlington, the capital of the new territory. Iowa Territory included all the country north of Missouri and between the Mississippi and Missouri Rivers to the British line, and, consequently, the greater part of the present State of Minnesota and Dakota Territory. The seat of the territorial government was removed in 1839 to Iowa City. A convention was held, a State Constitution formed, and

application made for admission into the Union. But owing to a question of boundaries, the formal admission of Iowa as a State did not take place until December 28, 1846.

GOVERNMENT.—The Constitution under which Iowa is at present governed was adopted in a State Convention on the 5th of March, 1857. It grants the right of suffrage to every male citizen of the United States, who has resided in the State six months, and in the county sixty days prior to the election. The general election is held on the second Tuesday in October.

The Legislature consists of a Senate of not more than fifty members, elected for four years, and a House of Representatives of not more than one hundred members, elected biennially. Senators must be twenty-five and the Representatives twenty-one years of age, and have otherwise the qualifications of voters. The Legislature meets on the second Monday in January, biennially, in the years of even numbers.

The Governor and Lieutenant-Governor are chosen biennially, and the choice may in either case be determined by a plurality of votes. Both must be at least thirty years of age, and have been citizens and residents of the State for two years preceding their election. A Secretary of State, an Auditor of Public Accounts, and a State Treasurer are also elected by the people for two years. The other State officers are a Warden of the Penitentiary, a Secretary of the Board of Education, a Commissioner of the Des Moines River Improvement, a Registrar of the State Land-office, and a State Librarian.

The Judiciary of the State consists of a Supreme Court, District Courts, and such other courts inferior to the Supreme Court as the Legislature may, from time to time, establish. The Supreme Court consists of three Judges, elected by the people for six years, one every second year, and the one having the shortest time to serve to be Chief-Justice. The Judges of the District Courts are elected in single districts for four years. A District Attorney is elected in each judicial district for four years.

The Constitution provides that the credit of the State shall not be given for any purpose; that deficits in the revenue may be made up by borrowing money, but the sum borrowed not to exceed \$250,000 at any one time; that no corporation shall be created by special law; that stockholders in banks shall be individually liable to double the amount of their stock—the bill-holders to have preference over other creditors; that suspension of specie payments by corporations shall not be permitted; that no new county shall be made of less than 432 square miles, and no existing county shall be reduced below that size; that no lease of agricultural lands shall be for more than twenty years; that aliens, residents of the State, may hold and transmit real estate; that imprisonment for debt shall be abolished, except in cases of fraud; that parties to suits in court may be examined as witnesses; that duelists shall be disqualified from holding any office; that the Legislature shall not grant divorces nor authorize lotteries, etc.

CITIES AND TOWNS.—*Iowa City*, a flourishing town, and seat of justice of Johnson County, is beautifully situated on the bluffs which rise

from the left bank of the Iowa River, about 80 miles from its mouth, 33 miles north-west of the Mississippi River at Muscatine, and about 760 miles in a straight line west by north of Washington—latitude $41^{\circ} 39'$ north, longitude $91^{\circ} 39'$ west. When the place was selected as the seat of government for the Territory, in May, 1839, it was entirely in a state of nature, and within a year from that time it contained from 500 to 700 inhabitants. The town is embowered among groves of trees, and surrounded by fertile prairies. The principal streets are Capitol Street and Iowa Avenue, which are about 100 feet in width. At the intersection of these, on a commanding eminence, stands a fine edifice of the Doric order, 120 feet long by 60 wide. The material was quarried in this vicinity, and is marked with spots and rings, which give it the name of "bird's-eye marble." The cost is estimated at \$100,000. This building was originally designed for the State Capitol, but on the removal of the seat of government to Des Moines, in 1854, the edifice was appropriated to the State University, which was founded in 1855, and has a medical department and branches at Fairfield and Dubuque. Iowa City is also the seat of asylums for the blind and the deaf and dumb, and of a female collegiate institution, founded in 1853 by the Order of Odd-fellows. The Iowa River is navigable for steamboats to this point, and the town is connected with Chicago by the Chicago and Rock Island Railroad.

Burlington, a flourishing commercial city, seat of justice of Des Moines County, and formerly the capital of Iowa, is situated on the Mississippi River, 45 miles above Keokuk, 250 miles above St. Louis, and 88 miles south-east of Iowa city. In respect to population this town is quite as large as any in the State, excepting Dubuque, which is much larger in extent. It continues to maintain a steady and healthy growth, notwithstanding the removal of the seat of government, in 1839, to Iowa City. The river in this part of its course is a broad and beautiful stream of clear water, and the town, situated partly on the top of the bluffs, overlooks a section of country abounding in rich and delightful scenery. Burlington is regularly laid out, and the greater part of the houses are of brick or stone. It had, by the census of 1850, a population of 6,706.

Dubuque, a flourishing city, and seat of justice of Dubuque County, is situated on the right bank of the Mississippi River, about 200 miles above Burlington, 450 above St. Louis, and 24 miles by water from Galena. The situation of Dubuque is regarded by some persons as more beautiful than that of any other city in Iowa. It stands on a broad plateau or terrace, which extends along the river for several miles. The city is regularly laid out, and contains a number of handsome buildings. Dubuque is the central depot of the mining region of Iowa, and is a place of active trade. Large quantities of lead are taken from this vicinity, and sent down the river by steamboats; stone-coal and limestone are also abundant. It is entered by the northern branch of the Illinois Central, and by the Dubuque and Keokuk Railroad. It is the oldest town in the State, having been settled by French Canadians about 1786. By the census of 1850, its population was

1,308; in 1860 it had increased the number of its inhabitants to 13,000.

Davenport, the capital of Scott County, is finely situated on the Mississippi River, at the foot of the Upper Rapids, opposite the town of Rock Island, 230 miles above St. Louis, and 60 miles east of Iowa city. It has advantages which indicate that it will continue to grow in extent and importance. The prosperity of Davenport is increased by its connection with the East by means of the Chicago and Rock Island Railroad. The Davenport and Iowa Railroad connects with Iowa City and Des Moines. During low water the navigation is obstructed by the rapids, which extend 20 miles above this place. Several newspapers are published here. Iowa College was established in Davenport in 1846 or 1847, and is a flourishing institution. Stone-coal is so abundant and cheap in the vicinity, that steam-power is chiefly used for manufacturing purposes. Davenport is built at the foot of a bluff, which rises gradually from the river, with a chain of rounded hills in the background. The scenery around the town is scarcely surpassed by any on the river. It was first settled in 1837, and is incorporated as a city. Its population in 1850 was 1,848, and in 1860, 11,267.

Keokuk is situated at the foot of the "Lower Rapids" of the Mississippi River, 205 miles above St. Louis, and 125 miles south of Iowa City. It is at the natural head of navigation for the large class of steamers, and is the natural outlet of the fertile valley of the Des Moines River, in which is the most populous part of the State. A line of splendid steam-packets communicates daily between Keokuk and St. Louis. The Lower Rapids are 11 miles in extent, in the course of which the river has a fall of 24 feet. Keokuk stands on a basis of fine limestone, affording an excellent material for building. It contains the medical department of the State University. The Mississippi River at this point flows over a bed of limestone, and is bordered by the bluffs, which rise abruptly nearly 150 feet high. Between these bluffs is an island 1,700 feet wide. The population of Keokuk in 1850 was 2,478; in 1860, 8,156. It has a public school edifice, built at a cost of \$13,500, and said to be the handsomest building of the kind in the State. There are 15 or 20 churches in the city, and a large number of brick and lumber-yards, mills, foundries, etc. The manufacturing establishments are numerous, extensive, and flourishing. Its trade and commerce are active and rapidly increasing. Keokuk is the terminus of two railroads—the Keokuk, Fort Desmoines and Minnesota, and the Keokuk, Mount Pleasant and Muscatine.

Muscatine, formerly Bloomington, capital of Muscatine County, is situated on the right bank of the Mississippi, 100 miles above Keokuk, and 32 miles south-east of Iowa City. Commencing at the head of the Upper Rapids of the Mississippi, the river may be traced in a direction almost due west for more than 40 miles, until it strikes a series of bold rocky bluffs, by which its course is suddenly turned toward the south. At the apex of this bend, on the summit of these bluffs, is situated the city of Muscatine. The place was first settled by the whites in 1836, previous to which time it had been an Indian trading-

post, known by the name of Manathea. It is now one of the most populous and commercial towns of the State, and is the shipping point for an extensive and fertile territory. In consequence of the bend in the river, Muscatine is nearer the center of the State than the other ports on the Mississippi, and it naturally commands the trade of two great fluvial divisions of Iowa; namely, the valleys of the Red Cedar and Iowa Rivers. There is a good river landing, with space for improvement in levees. A large amount of capital is invested in flour-mills, saw and planing-mills, in manufactories, and in a large variety of stores. The annual sale of lumber at this point is immense. Muscatine is the center of an extensive trade. Its population in 1850 was 2,540; in 1860, it was 5,324.

Council Bluffs City, formerly Kanessville, is the capital of Potawatomie County, near the Missouri River, 250 miles west of Iowa City. It was first settled by the Mormons. Many emigrants to Utah get their outfit here.

Des Moines, late Fort Des Moines, (de-moin'), is situated at the junction of the Des Moines and Raccoon Rivers, 120 miles west of Iowa City. The seat of the State Government was established here in 1855. The Des Moines is susceptible of steam navigation to this point, which is the terminus of the slackwater improvement prosecuted by the State. Mines of stone-coal have been opened in the vicinity, and timber is abundant. The river furnishes extensive water-power, which is partially employed in flouring-mills and saw-mills. Several newspapers are published here. The old Fort Des Moines was evacuated by the troops of the United States in 1846. The city had 986 inhabitants in 1850, and 3,965 in 1860.

Fort Madison, capital of Lee County, on the Mississippi River, 12 miles above the head of the Lower Rapids, 22 miles above Keokuk, and 22 miles below Burlington. The situation is beautiful and healthful, the ground rising gradually from the water to the west part of the town. The latter is well built, with a large proportion of brick houses. It contains the State-prison, a handsome brick court-house, and churches of the same material. Two or three ferry-boats ply constantly across the river, which is nearly a mile wide. Fort Madison is a place of much activity in trade and manufactures, in the latter of which it appears to have made more progress than any other town in the State. Large quantities of grain, pork, etc., are shipped at this place, which is also an extensive depot for pine lumber. Population in 1850, 2,300; in 1853, about 3,000.

Oskaloosa, the county town of Mahaska County, is situated between the Des Moines and Skunk Rivers, about six miles from the former, and 63 miles south-west from Iowa City. It was laid out in 1844, and is in the midst of a healthful and fertile country, abounding in fine timber. The State Normal School is located here.

THE LEAD REGION.—Within the limits of Iowa is in part located the most important lead region of the country, excepting the Missouri lead mines. This region embraces a district about 600 miles in diameter, of which about one-half is in Wisconsin, and the remainder equally distributed in Iowa and Illinois. The Missouri runs through the south-

west portion of this region. The Dubuque district in Iowa is about sixty miles in length, by seven or ten in breadth. The richest deposits are within the corporate limits of Dubuque, and they decrease in value toward the boundary of the district. In 1833 the Indian title to Iowa was extinguished, and mining subsequently began. From the surface to the top of the bluffs there are four distinct strata. On the surface is a clay soil, varying in depth from eight to twenty feet. Below the clay is shale, of which the thickness is from five to twenty feet; next, galena limestone, the lead-bearing rock, and the blue and Trenton limestone. The amount of lead produced from the extensive region in the three States in 1860 was in value as follows: Illinois, \$72,953; Iowa, \$160,500, and Wisconsin, \$325,368. The annual yield of the Dubuque region ranges from four to ten million pounds.

WISCONSIN.

THIS State is bounded on the north by Lake Superior and the northern peninsula of Michigan, (from which it is separated in part by the Menomonee and Montreal Rivers,) on the east by Lake Michigan, south by Illinois, and west by Iowa and Minnesota, from the former of which it is separated by the Mississippi, and from the latter (in part) by the St. Croix River. It lies between $42^{\circ} 30'$ and $46^{\circ} 55'$ north latitude, (if we exclude some small islands belonging to the State in Lake Superior,) and between 87° and $92^{\circ} 50'$ west longitude, being about 285 miles in extreme length from north to south, and about 255 in its greatest breadth from east to west, including an area of about 53,924 square miles, or 34,511,360 acres, of which 1,045,499 were improved in 1850, and 3,746,036 in 1860.

FACE OF THE COUNTRY.—Wisconsin may be described generally as an elevated rolling prairie, from 600 to 1,200 feet above the level of the sea. The highest portion of this plateau is on the north, and forms the dividing ridge between the waters flowing south-west into the Mississippi, and those flowing north into Lake Superior. The southern slope is again interrupted about the middle of the State by another ridge, giving origin to a second slope, drained by Rock River and its branches. This State has no mountains, properly so called. The descent toward Lake Superior is very abrupt, and the rivers full of rapids and falls, which interrupt navigation but afford valuable mill-sites. There is a third ridge or elevation in the south-east, dividing the water-courses of Lake Michigan from those of Green Bay. Just below the second ridge, a depression crosses the State, forming the bed of the Neenah or Fox River, and the Lower Wisconsin. When the rivers are unusually full, these actually communicate, though running in opposite directions, the one to the Mississippi, and the other to Lake Michigan.

GEOLOGY.—Limestone underlies most of the southern part of the State, the cliff limestone in the mineral districts, and the blue elsewhere. The northern part seems to be composed of primitive rocks, for the most part of granite, slate, and sandstone. Commencing a little south of the Wisconsin, and along the Mississippi, as far back as the falls of its tributaries, sandstone, between layers of limestone, is the prevailing rocks, and forms the cliffs on the Mississippi, below St. Anthony's Falls, for thirty-five miles. The rivers in this region are much obstructed by shifting beds of this sand. From Lake Michigan westward to the other sections named, is a limestone region, in many parts well timbered, while in others a considerable portion is prairie. Underlying the blue limestone is a brown sandstone, which crops out on the sides of the hills, but no lead has ever been found in it. A section through the Blue Mound would give the following result, descending vertically: Hornstone, 410 feet; magnesian lime, or lead-bearing rock, 159 feet; saccharoid sandstone, 40 feet; sandstone, 3 feet; lower limestone, (at the level of the Wisconsin,) 190 feet. The elevation of different parts of the southern sections of the State are given by Chancellor Lathrop, at Blue Mounds, 1,170; head waters of the Rock River, 316; egress of the same river from the State, 128, and the portage between the Fox and Wisconsin Rivers, at 223 feet above the level of Lake Michigan and the Wisconsin River.

Following the map accompanying the geological work of Professor Owen, on the States of Iowa and Wisconsin, and the State of Minnesota, we should say that about half the northern part of the State of Wisconsin, resting on Lake Superior, and having its apex near the 44th degree of north latitude, and about the middle of the State, (taken in an east and west direction,) is covered by drift, overlaying the Potsdam sandstone of New York, and metamorphic strata, with occasional protrusions of granite and other igneous rocks. Beyond this triangle, on the south-east and south-west, the sandstone comes to the surface in a broad belt, having between it and the Mississippi, (from the St. Croix to the Wisconsin River,) a second belt of lower magnesian limestone, with the sandstone occasionally laid bare in the valleys of the streams. This same formation is continued on the south, (following the Wisconsin River on both sides,) and on the east, coasting the sandstone belt to its full extent. The limestone is followed in turn by another zone of white sandstone, containing beds of shells. Next succeeds the lead-bearing group of upper magnesian limestone, extending into Illinois and Iowa on the south and west, and on the east running up into the peninsula formed by Great Bay and Lake Michigan, having a triangle of the Niagara limestone between it and Lake Michigan on the south-east. On the shores of Lake Superior are two beds of red clay and marl, separated by ridges of drift from 300 to 600 feet high. East of this, and just where the northern boundary leaves the lake, parallel groups of conglomerate red sandstone and slates, trap, and metamorphic slates, with beds of magnetic iron ore, granite, and quartzose rocks come to the surface.

MINERALS.—Part of the great lead region extending from Illinois

and Iowa is included in the south-west part of Wisconsin, and occupies an area of nearly 2,880 square miles, about one-half of which is in the last-named State. This portion is no less rich in the quantity and quality of its ore, than in the other States where it lies. The land is here intermingled with copper and zinc, the latter in large quantities, together with some silver. In Lapointe, Chippewa, St. Croix, and Iowa Counties copper is also found; in Dodge County, "at the so-called Iron Ridge, is the most promising locality of iron ore in the State yet discovered;" but on the Black River and other branches of the Mississippi, good iron ore occurs. The iron ores of Lake Superior region extend from Michigan into this State, in abundant deposits of the richest quality. The other metallic substances are magnetic iron, iron pyrites, and graphite or plumbago. The non-metallic earths are agate, cornelians, (found on the shores of the small lakes,) bitumen, peat, (which being in a region poorly supplied with fuel, may hereafter become valuable as a substitute for coal,) marble of fine quality, lime, quartz, some gypsum, saltpeter, sulphates of barytes, porphyry, and coal in small quantities. A vein of copper ore was discovered in 1848, near the Kickapoo River, which yields about twenty per cent. of copper, but to what extent the bed runs has not been ascertained. Mines were also worked at the Falls of Black River, and in its vicinity, but they have been abandoned. Facts do not justify any expectation of great deposits of copper in the north-western part of the State. A great bed of magnetic iron ore lies south of Lake Superior, near Tyler's Fork of the Red River, in strata of metamorphic slate. Beautiful varieties of marble have been discovered or made known to the public in the north part of Wisconsin. According to Messrs. Foster and Whitney's Report, they are found on the Michigamig and Menomonee Rivers, and afford beautiful marbles, whose prevailing color is light pink, traversed by veins or seams of deep red. Others are blue and dove-colored, beautifully veined. These are susceptible of a fine polish, and some on the Menomonee are within navigable distance from New York.

LAKES AND RIVERS.—Besides the great Lakes Superior and Michigan, which lave its northern and eastern shores, Wisconsin has a number of small lakes. The principal of these is Lake Winnebago, south-east of the middle of the State. It is about twenty-eight miles long and ten miles wide, and communicates with Green Bay, (a north-west arm of Lake Michigan,) through the Fox or Neenah River. These small lakes are most abundant in the north-west, and are generally characterized by clear water and gravelly bottoms, often with bold picturesque shores, crowned with hemlock, spruce, and other trees. They afford excellent fish. In the shallow waters on the margins of some of them grows wild rice, an important article of food with the savages of this region. The rivers which traverse the interior flow generally in a south-west direction, and discharge their waters into the Mississippi. The latter river runs along the south-west borders of Wisconsin for more than 200 miles. Commencing at the south, we have, in the following order, Wisconsin, Bad Axe, Black, and Chippewa Rivers. Of these the most important is the Wisconsin, which has a course of prob-

ably 200 miles, almost directly south, when it flows nearly west for about 100 more. It is navigable for steamboats 180 miles. The Chippewa is about 200 and the Black 150 miles long. The Rock, Des Plaines, and Fox River (of Illinois) drain the south-east slope of the State, and pass off into Illinois. The Fox or Neenah is the outlet of Winnebago Lake, and connects it with Green Bay. The Wolf, from the north, is the main feeder of the same lake. The Menomonee, emptying into Green Bay, and the Montreal into Lake Superior, are rapid streams, which are valuable for mill-sites. They form part of the north-east boundary. The Menomonee has a descent of 1,046 feet. The St. Louis, (considered as the primary source of the St. Lawrence,) coasts this State for twenty or thirty miles on the north-west, and is full of rapids and falls in this part of its course. These rivers are not generally favorable to navigation without artificial aid. The Wisconsin may be ascended by steamboats to the rapids, where it approaches a tributary of Lake Winnebago, within a mile and a half, where a canal is being constructed, which, when completed, will open an entire inland navigation from New York to the Upper Mississippi. The Rock River is sometimes at high water ascended by boats to within the limits of Wisconsin. The Bad Axe, Black, Chippewa, and St. Croix are important channels for floating timber to market from the pine regions in the north-west of the State. The rivers flowing into Lake Superior are small, and, though unfavorable for commerce, their rapid courses make them valuable for mill-sites. Colonel Long estimates that the Chippewa, Black, Wisconsin, and Rock Rivers are respectively capable of a steamboat navigation of 70, 60, 180, and 250 miles, but at present they are a good deal obstructed by shifting sands and rapids.

OBJECTS OF INTEREST TO TOURISTS.—Wisconsin, though young in political existence, is not behind her sister States in objects of interest, not merely for the utilitarian, but for the lover of picturesque, and even the antiquary. Scattered over her undulating plains are found earth-works, modeled after the forms of men and animals, that are evidently the work of a race different from those who possessed the country at the period of the arrival of the Europeans. At Aztalan, in Jefferson County, is an ancient fortification, 550 yards long, 275 wide, with walls 4 or 5 feet high, and more than 20 feet thick at the base. Another work, resembling a man in a recumbent position, 120 feet long and 30 across the trunk, is to be seen near the Blue Mounds; and one resembling a turtle, 56 feet in length, at Prairieville. These artificial works are generally without order, but sometimes have a systematic arrangement, with fragments of pottery often scattered around. Some are so defaced as to make it difficult to trace the animal resemblances referred to, while others are distinctly visible. One is said to have been discovered near Cassville resembling the extinct mastodon. Among the most striking natural objects are the Blue Mounds, in Dane County, the highest of which has an elevation of 1,170 feet above the Wisconsin, and is a prominent landmark in this country of prairies. Platte and other mounds, in the south-west of the State, have various elevations of from 60 to more than 100 feet. This State shares with Min-

nesota the beautiful Lake Pepin, an expansion of the Mississippi, mostly walled in by precipitous shores, which rise from 300 to 500 feet nearly perpendicular. These heights are merely given as examples, not as the only ones there are. Almost all the rivers in Wisconsin abound in rapids and falls. The most remarkable of these are a series of cascades or cataracts in the St. Louis River, which have a descent of 320 feet in 16 miles, terminating about 20 miles from its mouth. Quinnesec Falls, in the Menomonee River, have one perpendicular pitch of 40 feet, and an entire descent of 134 feet in one mile and a half, besides several other rapids, where the river tosses and dashes through narrow and tortuous defiles. Among the other falls are St. Croix, Chippewa and Big Bull Falls in the Wisconsin. The river bluffs present grand and picturesque views in many places, particularly at Mount Trempleau, on the Mississippi, in La Cross County, where the rocks rise 500 feet perpendicularly above the river, in Richland County on the Wisconsin, where the banks are from 150 to 200 feet high, and in Sauk County, where it passes through a narrow gorge between cliffs of from 400 to 500 feet elevation. Grandfather Bull Falls, the greatest rapids in Wisconsin River, are about 45° north latitude, and are a series of small cascades, or rapids, breaking through a ridge of 150 feet perpendicular height, for the distance of one mile and a half. In this vicinity are a number of chalybeate springs. On the same river near the 44th parallel of north latitude, is Petenwell Peak, an oval mass of rock, 900 feet long by 300 feet wide, and 200 in elevation above the neighboring country, of which it commands an extensive view. About 70 feet of this, at the top, is composed of perpendicular rocks, split into towers, tarrets, etc. A few miles below this is Fortification Rock, which rises to the height of 100 feet or more above the general level, being perpendicular on one side, while on the other it descends by a succession of terraces to the common level. At the Dalles, the Wisconsin is compressed for 5 or 6 miles between red and sandstone hills, from 25 feet to 120 feet high, and an average of 100 feet asunder. Between the Dalles and the mouth of the river, the bluffs are of every variety of height under 400 feet.

CLIMATE.—The climate, though severe, and the winters long, is more regular and more free from those frequent and unhealthy changes that prevail further south. The lakes, too, exert a mitigating influence, the temperature being $6\frac{1}{2}^{\circ}$ higher on the lake than on the Mississippi side. The lake shore is also more moist, but the State generally is drier than in the same parallels further east. From records kept between 1835 and 1845, it appears the Milwaukee River was closed on an average from November 22 to March 26; and steamboats arrived at Mineral Point from February 26 to April 16, closing from November 16 to December 4. The diseases consequent upon clearing lands are less frequent, it is said, in this than other new States, owing to the open nature of the country in the oak openings. The number of deaths in 1850 were less than ten in every thousand persons; while Massachusetts had about 20.

SOIL AND PRODUCTIONS.—The country south of the middle is a fine agricultural region, particularly that back of Kenosha. In the mineral

district, west of the Pekatonica, the country is broken, but what is unusual in mining tracts, generally well adapted to farming, and especially to grazing. But probably the best agricultural section is that east of the Pekatonica, which has more prairie land, though even here is a considerable portion of timbered land, on the rivers and streams. The agricultural capabilities of the northern part of the State, around the head-waters of the Black and Chippewa Rivers, and the sources of the rivers emptying into Lake Superior are small, the surface in part being covered with drift and boulders, and partly with ponds and marshes. The agricultural staples of this State are wheat, Indian corn, oats, Irish potatoes, butter, and live stock, besides considerable quantities of rye, wool, beans, peas, barley, buckwheat, maple sugar, beeswax, honey, cheese, and hay, with some sweet potatoes, tobacco, fruits, wine, grass seeds, hops, flax, and hemp. There were in 1860 3,746,036 acres of improved land in farms in Wisconsin, and 4,153,134 acres of unimproved land in farms. The cash value of the farms was \$131,117,082, and of farming implements and machinery, \$5,758,847. The number of horses in the State was 116,192; of asses and mules, 1,019; of milch cows, 193,996; working oxen, 13,660; other cattle, 225,210; sheep, 332,454; swine, 333,957. The live stock was valued at \$17,807,366, and the animals slaughtered at \$3,368,710.

The annual produce of wheat was 15,812,625 bushels; rye, 888,534; Indian corn, 7,565,290; oats, 11,059,270; tobacco, 87,595 pounds; wool, 1,011,915 pounds; peas and beans, 99,804 bushels; Irish potatoes, 3,848,505; sweet potatoes, 2,345; barley, 678,992, and buckwheat, 67,622 bushels.

The yearly orchard products were valued at \$76,096. There were produced 9,511 gallons of wine, and the value of the garden products for market was \$207,153. There were made 13,651,053 pounds of butter, and 1,104,459 pounds of cheese. There were gathered 853,799 tons of hay; 3,848 bushels of clover-seed; 26,383 bushels of other grass seeds; and 135,587 pounds of hops.

Of dew-rotted hemp, the annual product was 97 tons; of water-rotted, 15 tons, and of other prepared hemp, 244 tons. The amount of flax raised was 21,644 pounds; flaxseed, 4,256 bushels; and silk cocoons, 15 pounds. There were made 1,584,406 pounds of maple sugar; 288,000 pounds of cane sugar, 83,003 gallons of cane and maple molasses, 19,253 gallons of sorghum, 8,009 pounds of beeswax; and 207,184 pounds of honey. The value of the home-made manufactures was \$128,423.

MANUFACTURES.—This youthful State is rapidly and successfully developing her manufacturing capabilities. There were in Wisconsin, according to the United States census, in 1850, 1,262 manufacturing establishments, and in 1860, 3,120, with a capital in the same in 1850 of \$3,382,148, and in 1860, of \$16,580,000. The cost of the raw material annually used in the same was in 1850, \$5,414,931, and in 1860, \$17,250,000. The average number of male hands employed in 1850 was 5,798, and in 1860, 16,320; the number of female hands employed in 1850 was 291, and in 1860, 770. The total value of manufactured products in 1850 was \$9,293,068, and in 1860, \$28,500,000.

POPULATION.—Wisconsin increased her aggregate population from 305,391 in 1850 to 775,881 in 1860, being a gain in ten years of 470,490. The number of white males in the State in 1860 was 406,796, and of white females 367,914; total number of whites, 774,410. The number of colored males was 653, and of colored females, 518; total number of colored, 1,171. The total vote cast by Wisconsin for President in 1860 was 152,018, and in 1864 it was 149,342.

FOREST TREES.—There are vast forests of pine on the Upper Wisconsin, the Wolf River, and the tributaries of the Mississippi, north of the Wisconsin. The other forest trees are spruce, tamarac, cedar, oak of different species, birch, aspen, basswood, hickory, elm, ash, hemlock, poplar, sycamore, and sugar-maple; but forests such as are seen in Pennsylvania and New York occur only in a small portion of the Rock River Valley, and in a narrow border on Lake Michigan. The oak openings, already described, form a pleasing feature in the landscapes of Wisconsin.

ANIMALS.—The wild animals are black bears, prairie wolves, gray wolves, foxes, woodchucks, and the gopher, which is found only on the west side, near the Mississippi River. The last-named animal is very destructive to the roots of fruit-trees.

HISTORY.—Wisconsin was visited at a very early period by the French missionaries and discoverers, and a settlement made by the French in the latter part of the seventeenth century. There was no considerable influx of emigration, however, till quite recently; but it is likely to repay amply for its tardiness by the unexampled rapidity with which emigration flows thither, invited by its rich soil, valuable minerals, beautiful lakes, and rolling prairies. Wisconsin was formed into a territory in 1836, and admitted into the Union as an independent State in 1848.

REMARKABLE LONGEVITY.—One of the oldest men in the world resided in Wisconsin in 1864, having attained the age of one hundred and thirty-nine years. The following sketch of him was given in the Wisconsin "State Journal" of that year:

"Joseph Crele was born in Detroit, of French parents. The record of his baptism in the Catholic Church shows that he is now one hundred and thirty-nine years of age. He has been a resident of Wisconsin for about a century. He was first married in New Orleans one hundred and nine years ago. Some years after he settled at Prairie du Chien, while Wisconsin was yet a province of France. Before the Revolutionary war he was employed to carry letters between Prairie du Chien and Green Bay. It is but a few years ago that he was called as a witness in the Circuit Court, to give testimony in relation to events that transpired eighty years ago.

"The residence of the family is only four or five miles out of Portage City. From citizens of that place we learn that the old man is still active, and able to chop wood and to walk several miles. He speaks English quite imperfectly, but converses fluently in the French language. He stoops a little under the burden of years, but not more than many men of seventy. In person he is rather above the medium

height, spare in flesh, but showing evidence of having been, in his prime, a man of sinewy strength. Concerning his habits, a subject of great interest in connection with an instance of such extraordinary longevity, we have been able to learn but a little except that he is an inveterate smoker."

COUNTIES.—The following are the counties in Wisconsin, with the several county towns, and also the population of each county, according to the census of 1860 :

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Adams,	Friendship,	6,492	La Pointe,	Bay Field,	853
Ashland,	La Pointe,	515	Manitowoc,	Manitowoc,	22,416
Bad Axe,		11,007	Marathon,	Wausan,	2,892
Brown,	Green Bay,	11,795	Marquette,	Montello,	8,233
Buffalo,	Alma,	8,894	Milwaukee,	Milwaukee,	62,518
Burnett,	Wood River,	12	Monroe,	Sparta,	8,410
Calumet,	Chilton,	7,895	Oconto,	Oconto,	8,592
Chippewa,	Chippewa Falls,	1,895	Outagamie,	Appleton,	9,587
Clark,	Neillsville,	789	Osaukee,	Port Washing'n	15,682
Columbia,	Portage City,	24,441	Pepin,	Durand,	2,892
Crawford,	Pr'rie du Chien,	8,068	Pierce,	Ellsworth,	4,672
Dallas,		13	Polk,	Oscola,	1,400
Dane,	Madison,	43,922	Portage,	Plover,	7,507
Dodge,	Juneau,	42,818	Racine,	Racine,	21,360
Door,	Sturgeon Bay,	2,948	Richland,	Richland Cent'r	9,782
Douglas,	Superior,	812	Rock,	Janesville,	36,690
Dunn,	Menomonee,	2,704	Saint Croix,	Hudson,	5,392
Eau Claire,	Eau Claire,	8,162	Sauk,	Baraboo,	18,963
Fond du Lac,	Fond du Lac,	34,154	Shawano,	Shawano,	829
Grant,	Laucaster,	81,189	Sheboygan,	Sheboygan,	26,875
Green,	Monroe,	19,808	Trempeleau,	Galesville,	2,560
Green Lake,	Dartford,	12,668	Vernon,	Viroqua,	
Iowa,	Dodgeville,	18,967	Walworth,	Elk Horn,	26,498
Jackson,	Bl'k Riv'r Falls,	4,170	Washington,	West Bend,	23,622
Jefferson,	Jefferson,	30,438	Waukesha,	Waukesha,	26,831
Juneau,	Mauston,	8,770	Waupaca,	Waupaca,	8,851
Kenosha,	Kenosha,	13,900	Wauwaha,	Wautoma,	8,770
Kewaunee,	Kewaunee,	5,630	Winnebago,	Oshkosh,	23,770
La Crosse,	La Crosse,	12,186	Wood,	Grand Rapids,	2,425
Lafayette,	Darlington,	18,134			

FINANCES AND TAXATION.—The State debt of Wisconsin, at the commencement of the year 1865, amounted to \$2,500,000, and at the beginning of 1866, to \$2,664,550. Almost the entire amount of this debt is said to have been incurred by expenses growing out of the late civil war, and would doubtless be canceled when the claims of the State against the General Government came to be settled. Previous to the war, the debt of the State was only \$100,000.

The balance in the State Treasury at the close of 1864 was \$107,020. The taxable property of the State in 1863 was estimated at \$153,000,000, exclusive of \$30,000,000 of railroad property. The State tax was five and one-half mills on each dollar of taxable property.

The total revenue of the State in 1864 was \$802,196. Of this sum, the tax on banks produced \$52,016, and the tax on railroads, \$128,003.

During the year 1864, there were paid out of the State Treasury for the Hospital for the Insane \$42,500; for the State-prison, \$41,571.55; for the Deaf and Dumb Institute, \$16,175; for the Institute for the Blind, \$19,250, and for the State Reform School, \$12,004.50.

CITIES AND TOWNS—*Milwaukee*, a city, port of entry, capital of Milwaukee County, and the most populous town of Wisconsin, is situated on the west shore of Lake Michigan, at the mouth of Milwaukee River, 90 miles north of Chicago, and 75 miles east of Madison—latitude 43° 3' 45" north, and longitude 87° 47' west. It is pleasantly situated on the flats bordering the river, and on the bluffs which rise abruptly from the margin of the lake to the height of about 100 feet. The river approaches from the north in a direction nearly parallel with the lake shore, and is joined about 1 mile from its mouth by the Menomonee River, which comes from the west. The largest boats of the lake can ascend the river 2 miles from its mouth. The general appearance of the city is peculiar and striking, from the color and superior quality of the bricks manufactured here. They have a delicate and enduring cream or straw-color, which is highly agreeable to the eye, and is not affected by the action of the elements. Many of these brick are exported to distant parts of the Union.

The city contained, in 1860, 33 churches—4 Baptist, 3 Congregational, 1 Dutch Reformed, 4 Episcopal, 6 Lutheran, 6 Methodist, 2 Presbyterian, 6 Roman Catholic, and 1 Unitarian. It had, also, two Jewish Synagogues. Beside a large number of private and select schools, there were 9 public schools, one in each ward. The value of the school property amounted to about \$150,000. The schools are graded, and the higher as well as the elementary branches of education are taught in them. They are free to all, and supported partly by the State school fund, and partly by a city tax. There are, also, a female college and a commercial college.

Milwaukee had, in 1860, 8 banks, 7 insurance companies, a chamber of commerce, 2 orphan asylums, a Roman Catholic Convent, a hospital under the charge of the Sisters of Charity, 42 hotels, and a building erected by the United States in 1837–8, for Government purposes. This edifice is of Illinois marble, three stories high, and with two fronts—one of 110 and the other of 60 feet. It is occupied by a Post-office, Custom-house, United States District Court-rooms, library, etc. The city had, at the same date, 8 daily newspapers—4 in the English and 4 in the German language.

The following railroads then centered at Milwaukee: the Milwaukee and Chicago, running along the lake shore 85 miles; Milwaukee and Minnesota, running from Milwaukee to La Crosse, on the Mississippi, 200 miles; the Milwaukee and Horicon, connecting Milwaukee with Superior City, 325 miles distant; the Detroit and Milwaukee; the Milwaukee and Watertown; the Milwaukee and Beloit; and the Milwaukee and Mississippi, connecting Milwaukee with the Mississippi River at Prairie du Chien.

The main feature in the commerce of Milwaukee is its vast and increasing grain trade. The city contains many of the best flouring-mills in the West, whose brands have a high reputation in the eastern and continental markets. The receipts of grain at Milwaukee from January 1, 1866, to December 12, were as follows:

Flour,.....	442,978 barrels.
Corn,.....	761,762 bushels.
Oats,.....	1,774,625 do.
Rye,.....	872,508 do.

For the same period shipments were made as follows:

Flour,.....	694,806 barrels.
Corn,.....	479,979 bushels.
Oats,.....	1,934,116 do.
Rye,.....	265,812 do.

The provision trade of Milwaukee is second only to that of grain. The exports of beef and pork from this port are immense. It is the outlet of a rich and rapidly-growing country. Its exports of butter, wool, lead, brick, etc., are large. The navigation is usually open about eight months in the year, from March to November.

Milwaukee enjoys a healthy climate, the great lakes having a sensible influence in modifying the extremes of heat and cold. The mean annual temperature in three years was 47°. The extensive water-power of the river constitutes an important element in the prosperity of Milwaukee. At the head of the navigable part of the river a dam has been built, which raises the water 12 feet, and a canal conveys it to the city. Milwaukee is remarkable for the rapidity of its growth, which has not been surpassed, if equaled, by any of the Western towns. It maintains intimate relations with a region to which a vast emigration is flowing—a region which a few years ago was a solitary waste, or a field of savage warfare, but is now appropriated to the peaceful pursuits and liberal institutions of civilized society. The place was settled in 1835. The city was incorporated in January, 1846. Population in 1840, 1,751; in 1850, 20,061; and in 1860, 45,246.

Racine, capital of Racine County, is beautifully situated on the west shore of Lake Michigan, at the mouth of Root River, 25 miles south by east of Milwaukee, and 70 miles north of Chicago. It is the second city of the State in population and commerce, and has one of the best harbors on the lake, formed by the mouth of the river, which admits vessels drawing 12 feet of water. The city is built on a plane elevated about 40 feet above the surface of the lake. It is laid out in regular blocks, with wide streets, and contains a number of fine public buildings, among which is the Racine College, founded by the Episcopal Church. Racine contains 14 Protestant and 2 Roman Catholic churches, and a Central High School. Several newspapers are published here. The commercial advantages of this port have attracted considerable capital, and there are warehouses and mercantile houses in various branches of business. Over \$60,000 have been expended by the citi-

sens of Racine in the construction of a harbor. There are ship-yards and several furnaces, machine-shops, and flouring-mills. Plank-roads extend from Racine into the interior, and railroads to Chicago, Milwaukee, and Janesville. First settled in 1835; incorporated as a city in 1848. Population in 1840, 337; in 1850, 5,111; and in 1860, 7,822.

Madison, capital of the State of Wisconsin, and seat of justice of Dane County, is pleasantly situated on an isthmus between Third Lake and Fourth Lake, 80 miles west of Milwaukee, and 154 miles north-west of Chicago, in latitude $43^{\circ} 5'$ north, longitude $89^{\circ} 20'$ west. It stands in the center of a broad valley, surrounded by heights from which the town can be seen at a distance of several miles. The isthmus is about three-quarters of a mile in width. Fourth Lake, which lies on the north-west side of the town, is 6 miles long by 4 miles wide. It is a beautiful sheet of water, with clean, gravelly shores. The depth is sufficient for navigation by steamboats, and is estimated at about 60 feet. The Third Lake is rather smaller. When this place was selected for the seat of government, in 1836, it contained no buildings but a solitary log-cabin. The Capitol, which is a limestone structure, built at an expense of \$50,000, stands on ground 70 feet above the level of the lakes, and is surrounded by a public square. The streets which lead from the Capitol toward the cardinal points, descend gradually to the shores of the lakes, excepting the one which extends westward to College Hill. On this eminence, 1 mile west of the Capitol, and about 125 feet above the lake, is situated the University of Wisconsin, which was instituted in 1851. The author of "Western Portraiture" gives the following lively sketch of this place and its environs: "Madison, perhaps, combines and overlooks more charming and diversified scenery to please the eye of fancy and promote health and pleasure, than any other town in the West; and in these respects it surpasses every other State capital in the Union. Its bright lakes, fresh groves, rippling rivulets, shady dales, and flowery meadow lawns, are commingled in greater profusion, and disposed in more picturesque order, than we have ever elsewhere beheld. * * * Nor is it less noteworthy for its business advantages and its healthful position. Situated on elevated ground, amid delightful groves and productive lands, well above the cool, clear lakes, it must be healthy; while the abundance and convenience of fine streams and water-power must facilitate a sound and rapid advancement in agriculture and the mechanic arts. Madison is the seat of the State Lunatic Asylum, and contains a Historical Society, a Commercial College, a public High School and ward schools, a number of private schools, and churches. It has several daily and weekly newspapers, and other periodicals. Two of the weekly papers are published in the Norwegian language. The rich surrounding country combines with other advantages to render Madison an active commercial center. It has an easy communication with all parts of the country by means of railroads. Its population in 1840 was 376; in 1850, 1,525, and in 1860, about 10,000.

Kenosha, formerly Southport, a flourishing town of Southport Township, capital of Kenosha County, Wisconsin, is situated on a bluff on

the west shore of Lake Michigan, 55 miles north of Chicago, and 35 miles south of Milwaukee. It is the most south lake port in Wisconsin, and has a good harbor, with piers extending into Lake Michigan. The town was commenced in 1836; in 1840 it had 337 inhabitants, since which date it has increased very rapidly. The adjacent country is a beautiful, fertile prairie, in which extensive improvements have been made. A plank-road, about 20 miles long, connects this place with Fox River, of Illinois, and railroads with Chicago, Milwaukee, and Rock River. The chief articles of export are wheat, flour, oats, pork, and wool.

LAKE MICHIGAN.—This is one of the five great lakes of the Northern United States, and the only one which is entirely inclosed in these States. It lies in a northern and southern direction, extending from the northern part of Illinois 320 miles to Mackinaw, where it communicates with Lake Huron by a strait four miles wide in its narrowest part. The lake is bounded on the east by the lower peninsula of Michigan, while the upper peninsula bounds it on the north-west. In the latter portion is Green Bay, which extends south into Wisconsin. This State and Illinois complete the western boundary of the lake.

The following are the dimensions of Lake Michigan, as given by Dr. Douglas Houghton: Mean length, 320 miles; mean breadth, 70 miles; mean depth, 1,000 feet; elevation above the sea level, 578 feet; area, 22,400 square miles, exceeding the area of Lake Huron by 2,000 square miles.

The country around Lake Michigan is, for the most part, low and sandy; on the east side, particularly, the sands thrown up by the waves are blown inland and form hills, which are sometimes 150 feet high. The rocks are limestones and sandstones, of the sub-carboniferous group, lying in horizontal strata, and never rising into bold cliffs. On the Michigan side they belong chiefly to the Portage and Chemung groups, and on the Illinois side to the Helderberg limestone. Along the southern shores are post-tertiary beds of clay and sand lying a few feet above the level of the lake, and containing fresh-water shells like those living in its waters. This fact, and the low water-shed that separates the lake from the valley of the Illinois River, together with the great capacity of this valley, which appears as if worn by a mighty river, renders it probable that the waters of Lake Michigan, at some period, found their way by the valley of the Mississippi into the Gulf of Mexico. The lake at present is believed to be moving westward, gradually encroaching upon the shores of Wisconsin and leaving those of Michigan.

From observations made at Chicago, Ill., Lieutenant-Colonel James D. Graham, of the Topographical Engineers, U. S. A., has shown the existence of a lunar tidal wave in Lake Michigan. He published this fact in his report to the War Department, November 15, 1855, and also in a communication to the Chicago Historical Society on the 30th of the same month. The result of still later observations was given in a memoir read before the American Association for the Advancement of Science, at the Newport meeting, August 1, 1860. The mean of 340 observations shows a difference of elevation of the lake surface between

high and low water of 153 thousandths of a foot; and the mean of 24 semi-diurnal spring-tides—one day before and two after new or full moon—gives a difference of elevation of 245 thousandths of a foot, or a little over three inches. High water occurs half an hour after the meridian passage, or southing of the moon.

Few harbors or bays are met with around Lake Michigan. The only islands it contains are at its north-east extremity. It is not, therefore, a very safe lake to navigate, especially as it is subject to severe storms at different seasons of the year; yet, until the railroads were completed across the State of Michigan, it was much navigated by fine passenger steamers, whose route extended from Buffalo to Chicago. Many freight-vessels are still employed upon the same and many shorter routes. The Straits of Mackinaw, which longest retain the ice, are usually open between May 1st and December 1st.

The fish of Lake Michigan are like those of Lake Huron. The fisheries are generally constructed about Mackinaw. The best harbors are at Little Traverse Bay, and at Grand Haven, at the mouth of Grand River, on the eastern shore of the lake.

IMPROVEMENT OF FOX AND WISCONSIN RIVERS.—Early in 1866, the lands, water-powers, and other improvements of the "Fox and Wisconsin Rivers Improvement Companies" were sold by the trustees on behalf of the State, to meet the State indebtedness and the cost of completing the improvement. The sale produced an amount deemed sufficient for both these objects, the latter being of more than local interest and importance. The original plan adopted by Wisconsin in 1849 for the improvement of the Fox and Wisconsin Rivers, contemplated locks 35 feet in width and 140 in length. In 1856 the locks were required to be lengthened in depth and width. This latter plan having been nearly consummated, enough money, it is said, was realized by the proceeds of the sale in 1866 to prepare for the speedy passage of boats and barges, of a moderate size and capacity, from the Mississippi to Lake Michigan at Green Bay.

RAILROADS.—From official statistics published by the Secretary of State, it appears that in 1864 there were in Wisconsin eight lines of railroads, with an aggregate length of track in the State of 1,631 miles. The number of through passengers carried during the year was 280,205, and of way passengers, 1,622,688. The total amount of freight carried was 1,892,076 tons, and the proceeds for carrying freight and passengers amounted to \$13,183,563.29.

EDUCATION.—The following statistics are gathered from the annual report of the Superintendent of Public Instruction, for the year ending August 31, 1865:

Whole number of children over 4 years and under 20 years of age....	835,582
Number of different pupils who attended the public schools.....	228,987
Number of days' attendance of different pupils in the public schools.	14,681,167
Average number of days the schools were taught.....	134.5
Per cent attendance of number registered.....	50
Per cent attendance of number registered entitled to school privileges	33
Number of different persons employed as teachers.....	7,532

Average wages of male teachers per month.....	\$36 46
Average wages of female teachers per month.....	22 24
State Fund apportioned.....	<u>\$151,816 34</u>

Total amount expended during the year and on hand Aug. 31...\$1,055,101 83

During the year covered by this report, there were 2,222 male teachers and 5,310 female teachers employed in the public schools, and 11,948 more pupils in attendance than in 1864. The whole number of pupils was sixty-six per cent. of the whole number of persons over four years and under twenty years of age in the State. The number less than four years of age who had been registered was 1,252. There was raised by tax for school purposes \$2.70 for each child over four and under twenty years of age, and \$4.07 for each child registered as a member of the public schools. The number of school-houses was 4,388, valued at \$1,500,000, and accommodating 241,595 pupils.

The Superintendent's report gives the productive portion of the school fund as follows :

Amount due on hand sold on certificates.....	\$675,037 11
Amount due on mortgages.....	289,123 75
Amount on certificates of State indebtedness.....	897,000 00
Amount due on State bonds.....	103,700 00
One quarter of the Normal School fund	<u>146,645 46</u>
Total.....	<u>\$2,113,506 32</u>

For the preceding year (1864), the whole amount of the productive school fund was \$2,052,353; the amount apportioned to the public schools, \$151,010, and the amount of the productive fund of the State University was \$157,120.

The school fund of the State was originally derived principally from the following sources: Proceeds of the sale of the sixteenth section of each township, and an additional grant by Congress of 500,000 acres of land; 25 per cent. of the proceeds of the sale of swamp and overflowed lands, and lands selected in lieu thereof (25 per cent. to go to the Normal School fund;) five per cent. of the sales of Government public lands in the State; five per cent. penalty as forfeiture for non-payment of interest on school land certificates and school fund loans; and the clear proceeds of all fines collected in the several counties for penal offenses and for trespasses on State lands.

CALIFORNIA.

CALIFORNIA is bounded on the north by Oregon, on the east by Nevada, (from which it is in part separated by the Sierra Nevada Mountains,) on the south-west by Arizona, (from which it is partially separated by the Colorado River,) south by Mexico, and south-west and west by the Pacific Ocean. California is very irregular in shape. It extends from Oregon on the north to Lower California on the south, and from Nevada and Arizona on the east to the Pacific on the west, reaching through nearly ten degrees of latitude in length—from $32^{\circ} 20'$ to 42° north—and through about ten degrees of longitude in its extreme breadth, lying between the meridians of $37^{\circ} 18'$ and $47^{\circ} 28'$ west from Washington. Its area has heretofore usually been set down at 188,982 square miles; but more recent and careful surveys fix the actual area of the State at 158,687 square miles, or 101,659,680 acres.

FACE OF THE COUNTRY.—As the voyager sails along the coast of California, he looks upon a low range of mountains, which in many instances approach to the water's edge, and form a bluff, iron-bound coast, through which he enters, by a narrow strait named the Golden Gate, the Bay of San Francisco. Following these low mountains on the coast north of the Golden Gate is a broken and hilly country, to which succeeds the coast range, entering from Oregon and extending nearly parallel with the ocean, at distances varying from 30 to 100 miles, till it reaches the 35th parallel of north latitude, where it unites with the Sierra Nevada and passes into old California. This range varies generally from 500 to 5,000 feet in height. Mount Linn, in latitude 40° , is the highest known peak of this part of the coast range, but its height has not been ascertained. South of the Golden Gate, San Bernardino, in latitude 34° , attains an elevation of about 17,000 feet. In this portion, between the Sierra Morena Mountains (near the Pacific) and the coast range, lie the valleys of the San Juan and of the Buena-ventura, which have their outlets in the Pacific Ocean. The latter is 60 miles long and from 15 to 20 wide. The Sierra Morena or Brown Mountains (2,000 feet high,) descend toward the Golden Gate, of which they form the southern wall. The mountains immediately on the coasts bear various local names. Table Hill, on the north side of the strait leading into San Francisco Bay, is 2,569 feet high, and Mount Diablo, east of San Francisco, is 3,770 feet in height. Near the northern boundary of the State, in a spur of mountains running north-east from the coast range to the Sierra Nevada, is Mount Shasta, having an elevation of 14,400 feet; it is covered with perpetual snow. In Shasta County is also Mount St. Joseph's, 12,000 feet high. The great valley of the Sacramento and San Joaquin extends from north to south about 500 miles, with an average breadth of about 60 miles, bounded by the coast range on the west and by the Sierra Nevada on the east.

From a base of about 500 feet above the sea commences the ascent of Sierra Nevada, the acclivities being wooded to about half the mountain's height with oak, succeeded by a forest of gigantic pines, cedars, and cypress; then follows the naked granite, and lastly, the summits crowned with perpetual snow. At the north end of the Sacramento Valley is a second higher valley, of about 100 miles in length and some thousands of feet in elevation, heavily timbered, and containing tracts of arable land along the streams. The Sierra Nevada range may be regarded as a continuation of the Cascade Mountains of Oregon. It extends almost directly south till it unites with the coast range, in latitude 34° north, forming in its course the east boundary of California, as far as the 39th degree of north latitude, near which is Fremont's Pass, 7,200 feet above the level of the sea. There is a volcano in Calaveras County, near the sources of Jackson's River. On the western slope of these mountains, mostly between 37° and 40° north latitude, are the celebrated "gold diggings," toward which the eyes of those "who make haste to be rich" have been so eagerly turned since the first discovery of gold in Sutter's mill-race in 1847.

COUNTIES.—The following are the counties in California, with their county towns, and also the population of each county according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Alameda,	San Leandro,	8,927	Placer,	Auburn,	13,270
Amador,	Jackson,	10,980	Plumas,	Quincy,	4,363
Alpine,	Silver Mount'n,		Sacramento,	Sacramento,	24,142
Butte,	Oroville,	12,106	Santa Barbara,	Santa Barbara,	3,543
Calaveras,	San Andreas,	16,299	San Bernardino,	San Bernardino,	5,551
Colusa,	Colusa,	2,274	Santa Clara,	San Jose,	11,912
Contra Costa,	Martinez,	5,328	Santa Cruz,	Santa Cruz,	4,944
Del Norte,	Crescent City,	1,998	San Diego,	San Diego,	4,324
El Dorado,	Placerville,	20,562	San Francisco,	San Francisco,	56,802
Fresno,	Millerton,	4,605	San Joaquin,	Stockton,	9,445
Humboldt,	Eureka,	2,694	San Luis Obispo,	San Luis Obispo,	1,782
Inyo,	Independence,		San Mateo,	Redwood City,	3,214
Kern,	Havilah,		Shasta,	Shasta,	4,360
Klamath,	Orleans Bar,	1,803	Sierra,	Downieville,	11,387
Lake,	Lakeport,		Siskiyou,	Yreka,	7,629
Lassen,	Susanville,	11,383	Solano,	Fairfield,	7,160
Los Angeles,	Los Angeles,		Sonoma,	Santa Rosa,	11,367
Mariposa,	Mariposa,	6,243	Stanislaus,	Knight's Ferry,	2,245
Marin,	San Rafael,	3,334	Sutter,	Yuba City,	3,390
Mendocino,	Ukiah City,	3,967	Tehama,	Red Bluff,	4,044
Merced,	Snelling's R'ch,	1,141	Trinity,	Weaverville,	5,125
Mona,	Bridgeport,		Tulare,	Visalia,	4,638
Monterey,	Monterey,	4,789	Tuolumne,	Sonora,	10,229
Napa,	Napa,	5,521	Yolo,	Woodland,	4,716
Nevada,	Nevada,	16,446	Yuba,	Marysville,	13,668

GEOLOGY.—According to Mr. Tyson's survey, speaking generally, a section across the State, from Bodkay Bay, bearing from north 80° east to the Sierra Nevada, exhibits first, on the western side, in the

coast range, a sandstone formation, with interpositions of leptinite, clays, trachyte, talcose slate, and trap rocks; while the recent sedimentary deposits of the Sacramento Valley rest upon beds of conglomerate sandstone and clay, and the western declivities of the Sierra Nevada consist mainly of talcose and other slates, through which are extruded trappean rocks, leptinite, granite, and serpentine. A similar section across the State from San Francisco Bay, bearing north 70° east, exhibits sandstones, with some fossil deposits east of the bay; on the west slope, conglomerate sandstone, and slates, with trap, volcanic tufa, and porphyry.

MINERALS AND MINING.—It is almost superfluous to say that California is one of the most important mineral regions in the world, particularly in its deposits of gold. The great gold diggings lie on the western slope of the Sierra Nevada Mountains, principally between 37° and 40° north latitude; but the precious mineral has also been found in other quarters in considerable quantities, particularly in Klamath County, in the north-west, and in Shasta County. The gold first discovered was evidently not in place, but the washings from the upper regions; and when that shall have been exhausted, there are large bodies of auriferous quartz, which, (with greater labor and expense) will probably afford large supplies of this metal for generations to come. In addition to the precious metal just noticed, there has been found in Butte County an abundance of quicksilver, platina, iron, lead, and some silver; copper and silver, quicksilver, platina, asphaltum, marble, and granite occur in Marin County; black marble in Shasta; a fine-grained white marble and freestone in Calaveras; a splendid ledge of pure white marble on the middle fork of Feather River; quicksilver in Napa; rich silver-mines and coal in San Luis Obispo; quicksilver in Santa Clara; copious salt springs (sufficient, report says, to supply the State) in Shasta; bituminous springs in many places along the coast, and hot sulphur springs in Santa Barbara; warm soda springs near Benicia, in Solano; bituminous and sulphur springs in San Luis Obispo; and hot, asphaltum, and salt springs in Los Angeles County. According to Professor Trask, "platina is widely distributed; scarcely a section of country where gold has been found, but that this metal has been discovered." Silver has been found in several mines in the southern district, copper is widely distributed, and chromium occurs in large quantities in serpentine rocks.

In 1865 a new gold-mining district was opened in the extreme western part of Nevada County, among the high hills of the Sierras, and near the Pacific Railroad. The ores promised to be very rich. It is said that the poorer portions of the ores sold on the spot at forty dollars a ton. The richer ones were taken to a distance to be worked. A single chunk of ore from this mine is reported to have yielded over \$3,900 to the ton.

GOLD MINING.—The western slopes of the Sierra Nevada, the original gold region, yield no silver ore, but gold only. The gold-mining is of two kinds—that which obtains the metal from the solid rock of quartz, and that which separates it from sand, gravel, or soil. The former pro-

cess usually follows in the wake of the latter, and succeeds when the "Diggings," as they are familiarly called, become exhausted, or fail in their first attractions. In these "Diggings," deposits of gold are found in sand, gravel or soil, supposed to have been ground out of the rock of the hills by the action of the elements, and worked down into the beds of rivers or mountain caverns. These deposits of gold are obtained by one general process—that of washing with water. But the mode of operation is various—from the hand-pan, pick, and shovel of the original miner to large combinations of capital and costly machinery, for changing the course of a river and get at its bed, for running down shafts hundreds of feet to bring up an old river-bed, or for bringing water ten or twenty miles through ditches and pipes, to wash down a whole hill-side at once, to get at the golden dust.

The search for gold deposits in the beds of old streams, by means of shafts and tunnels, is called "Deep Diggings," or "Bed-rock Diggings." The rocky-bed, along which a river originally ran, is said to yield the richest deposits. These old beds are often followed for miles, the miners digging down many feet below the surface. But a greater amount of capital and labor is required in what is called "hydraulic mining." By this process water is brought from lakes and rivers, and by means of powerful engines, thrown in streams upon or against a bank of earth or a whole hill-side, tearing it into fragments, which are separated into narrow sluices, where the particles of gold are deposited. These mining operations of course lay waste the country. Streams of water are turned out of their natural courses, and others, naturally pure, are made thick with mud. Immense masses of soil are washed down from the diggings above upon the banks of the rivers below. But mining rights are considered superior to all others in California, and it is of little use to complain of the wholesale destruction of property by mining operations. The expense of hydraulic mining is very heavy, yet it often yields a large profit. A company carrying on its operations near Dutch Flat, bring water-power from mountain lakes, twenty miles distant, and turning rivers out of their courses, expended eighty thousand dollars one year in making a new ditch, yet in the same year liquidated that amount, and divided among its stockholders an additional profit of one hundred and twenty thousand dollars. But in these, as in other mining operations, where some meet with splendid success, others signally fail. The gold-washings, however, in their various modifications, are, probably, in proportion to the labor and capital expended, as profitable and yield as fine returns as any other department of mining. Some cases are mentioned where single companies often wash out, each, a thousand dollars a day, and others are spoken of whose washings for weeks average fifty to one hundred dollars a day to the hand. A "clearing up," after a successful run, often produces fifty thousand and sometimes a hundred thousand dollars.

Most persons are familiar with the general excitement caused by the discovery of gold in California in the spring of 1848. For years subsequent to that event, a great tide of emigration continued to flow steadily into this new gold region. The scene of operations in mining

for the precious metal lay along the western slope of the Sierra Nevada, reaching into the mountains but to a very limited extent. The district known as the gold regions of California is about 250 miles long, extending from Siskiyou on the north to Mariposa County on the south. In it are those great placers that still continue to furnish annually about forty million dollars in gold.

But in addition to the placer mining, quartz mining has been gradually developed, and a large amount of capital is now invested in its operations. The principal quartz mining is carried on in Mariposa County, Tuolumne, in the vicinity of Sonora, in Amador, Jackson, Sierra, and Plumas Counties. In Nevada County are the celebrated Grass Valley mines. They yield regularly from \$250,000 to \$300,000 per month, and are said to be the richest quartz mines now worked in this country, or in the world. There were, in 1865, from seventy-five to one hundred quartz-mills in California, yielding about \$8,000,000 worth of gold yearly. The veins that furnish the quartz for the mills, are generally in the immediate neighborhood of rich placers, varying in width from a few inches to thirty or forty feet, and *encased* in either slate, granite, or greenstone. The Princeton Mine, on the Mariposa estate, is in slate, and had reached, in 1865, a depth of over six hundred feet, having then yielded some three million dollars' worth of gold, without being exhausted, though it yielded less than in former years. This mine, which had been for some time affording rock, gradually increasing in value till it reached forty dollars a ton, suddenly, and without giving any sign of what was to happen, refused, in December, 1864, to yield rock worth over six dollars a ton. This was said to be the principal cause of the failure of the Mariposa Company, formed in Wall-street, New York, a year or two before, with a capital of ten million dollars.

The mine of Hayward & Co., near Jackson, in Amador County, has been worked for some ten or twelve years with varying success. But with the increasing depth, the rock is said to become richer. In 1865 it had reached a depth of 960 feet. Two of the most famous mines in the Grass Valley district are the Massachusetts Hill and the Allison Ranch. The former, with a vein from a foot to fourteen inches wide, has produced over seven million dollars' worth of gold, and the Allison Ranch, from a vein averaging ten inches in width, yielded, between 1857 and 1865, some two million dollars. In Plumas County, in the more northern part of the State, are some very successful quartz mines.

It is difficult to estimate the profits of quartz mining in a general way, as so much depends upon the absolute yield of the rock, and upon the cost of its extraction from the mine. This latter item sometimes runs up as high as twenty-five dollars a ton. But the expense of milling the quartz, after it is extracted from the vein, seldom exceeds three dollars a ton in a steam-mill, and in water-mills the cost of extracting the ore is but seventy-five cents per ton. Under ordinarily favorable circumstances, quartz yielding ten dollars a ton may be worked with profit.

THE QUICKSILVER MINES.—The famous quicksilver mines of New Almaden are situated in Santa Clara County, twelve miles from the

Pueblo of San Jose, and about sixty miles south from San Francisco. Since quicksilver is universally used, and in large quantities, in the separation of gold and silver from the dross with which they are usually combined, the discovery and successful working of the quicksilver mines in California have exerted a great and favorable influence upon the mining interests of the country. The only other parts of the world from which mercury is obtained are Peru, Spain, and Austria. The New Almaden mine of cinnabar, was opened and first worked in 1845, by a Mexican. Owing to the disordered state of the country, it was not worked in 1846. In 1850 a company of Mexicans and English worked the mine, but in 1858 were enjoined by the United States Court from continuing their operations till the title to the property should be determined. The product up to that time, as shown by the papers presented in Court, had amounted to \$8,000,000, and the annual produce was estimated at \$1,000,000. The case involving the title to the property was carried from the District Court of the United States, in California, to the Supreme Court at the city of Washington, where, in April, 1863, after long years of expensive litigation, it was brought to a close by a final decision. By compromise and purchase, all the mines and mining property previously in litigation, embracing 4,438 acres, eventually passed into the hands of the present New Quicksilver Mining Company. It is estimated that more than one-third of this large domain is traversed by rich veins of cinnabar.

The New Almaden Mine, which yielded under its former ownership, 24,000 pounds of quicksilver, is but a single development of this vast mineral deposit. Exclusive of the time it was closed by injunction, the total value of the products from this mine, and the other branches of this great cinnabar deposit, during the twelve years prior to 1865, amounted to about fifteen millions of dollars in gold. The company had, in 1865, erected 406 buildings, consisting of dwelling-houses, workshops, and stores, six furnaces, and a railway from the mines to the furnaces. In the employ of the Company there were at that time 1,943 persons, about five-eighths of whom were Mexicans, or native Californians.

The average annual product of the mines for eleven years, from July, 1850, to August, 1863—deducting a period of two years between November, 1858, and January, 1861, during which the mines were closed by injunction—were about 28,000 flasks, or a little over 2,333 flasks per month, the flask containing about 75 pounds, worth 65 cents a pound. The average monthly product for ten months, from September, 1863, to June, 1864, was 2,774 flasks; and for six months, from July to December, 1864, 4,118 flasks. The cinnabar is a red, brick-looking earth, or ore, dug from its veins like any other ore, fashioned into small squares, or bricks, built up into a kiln, and fire set under and among them. The quicksilver exudes in a liquid stream, or vapor, and is caught and bottled up. The New Almaden, and the other quicksilver mines in their vicinity, are considered inexhaustible. Other veins of great promise, in other parts of California, have been discovered.

COPPER MINES.—California is not only rich in gold and quicksilver

mines, but the magnitude of the copper deposits, and the richness of the ore, have led to the extensive and profitable development of copper mines. There are two large beds of the ore at remote points; one at Copperopolis and its vicinity, near the center of the State, and on the slopes of the Sierra Nevada; the other in Del Norte County, in the extreme north-west corner of the State, west of the Coast Range, and eighteen miles from the port of Crescent City. The Calaveras County mines are said to yield over sixty dollars' worth of copper ore to the ton, and the lodes in Del Norte County, from 25 to 80 per cent. of pure copper.

THE GOLD PRODUCT.—The produce of gold from the entire region west of the Rocky Mountains, was estimated for 1864 at sixty million dollars, and for 1865 at sixty-five or seventy millions. Of this amount, California was estimated to yield about one-third. Other estimates put the produce of gold in California in 1864 at \$42,000,000, and in 1865 at \$50,000,000.

BAYS, RIVERS, LAKES, ETC.—San Francisco Bay, the best and most capacious harbor on the Pacific coast, (including the two arms, San Pablo and San Francisco Bay proper,) perhaps 70 miles in length, and in the widest part 14 miles broad, with a Coast line of 275 miles. A strait, about 2 miles wide, and from 5 to 7 miles long, breaking through a range of low mountains, connects it with the ocean. This strait has been termed, not inappropriately, the Golden Gate, as it is the passage through which the multitude from every region of the world are constantly hastening, in order to gather the wealth of this new and richer El Dorado. Within the barrier of hills already alluded to, the bay divides into two parts, the one stretching to the south about 40 miles, and the other to the north for about 30. On the north-west shore of the southern arm stands the city of San Francisco. The northern arm (San Pablo) is united by a second strait, Carquinez, with Suisun Bay directly east of it, which is 15 or 20 miles long. The Golden Gate is the only channel of communication between the Pacific and the interior of California. Pelican, Humboldt, Bodega, Sir Francis Drake's, Monterey, De los Esteras, Santa Barbara, San Pedro, and San Diego are the other bays, all opening into the Pacific. The Sacramento and San Joaquin are the principal rivers of California, and, running in opposite directions, the former from the north and the latter from the south, they drain almost the entire valley between the two great ranges, Sierra Nevada and the Coast Range, and unite about 15 miles above Suisun Bay, into which they discharge their mingled waters. Each of these rivers has a course of from 250 to 300 miles. All their tributaries of importance descend the Sierra Nevada slope. The principal of these, commencing at the north, are Pitt, the Feather, Yuba, and American, and of the San Joaquin, the Calaveras, the Stanislaus, the Toulumne, and Merced Rivers. The Mokelumne meets the Sacramento and San Joaquin near their junction. The Sacramento has been ascended by small steamers as far as Marysville, the San Joaquin as far as Fort Miller, and the Merced for 20 miles. The Klamath River from Oregon runs through the north-west part of the State, and the Buenaventura

drains part of the valley between the Sierra Morena and Coast Mountains; both empty into the Pacific. The principal lakes are Tulare Lake, about 60 miles long, in the south, which has an outlet into the San Joaquin River, and Clear Lake, in Mendocino County, Owen Mountain and Mono Lakes, in the eastern part of the State, are all small.

OBJECTS OF INTEREST TO TOURISTS.—Not to repeat what has been already said of the magnificent mountain ranges, with their summits clad with everlasting snow, we may notice a few natural curiosities of quite a different character. Among the most remarkable of these are the hot sulphur springs, the Geysers of America, in Napa County, about 70 miles north of the city of this name. They are from 1 to 9 feet in diameter, and constantly in a boiling state, ejecting water to heights of 10 or 15 feet. Hundreds of fissures in the sides of the mountains emit strong currents of heated gas, with a noise resembling that of vapor escaping from ocean steamers. We condense the following from Silliman's Journal of November, 1851, by Professor Sheppard: "From a high peak we saw on the west the Pacific, on the south Mount Diablo and San Francisco Bay, on the east the Sierra Nevada, and on the north opened at our feet an immense chasm, from which, at the distance of from 4 to 5 miles, we distinctly saw dense columns of steam rising. Descending, we discovered within half a mile square from 100 to 200 openings, whence issued dense columns of vapor to the height of from 150 to 200 feet, accompanied by a roar which could be heard for a mile or more. Many acted spasmodically, throwing up jets of hot, scalding water to the height of 20 to 30 feet. Beneath your footsteps you hear the lashing and foaming gyrations; and on cutting through the surface, are disclosed streams of angry, boiling water. 'The Three Buttes,' says Lieutenant Derby, 'have been erroneously represented, since they are in reality a range of about 12 miles in width by 6 in breadth, and contain, perhaps, 20 peaks; the highest of which, and the most interesting, is that on the north, which is a very steep cone, surmounted by a turret-shaped rock, 56 feet high, and has an elevation of 2,483 feet.' (Capron says 4,000 feet.) This commands an extensive view from the Coast Range to the Sierra Nevada, and for perhaps 80 miles up and down the Sacramento Valley, and will doubtless one day be one of the fashionable resorts of the San Franciscans." Among the mountains not named in the general survey, are Mount Prospect, 5,000 feet high, and Salmon Mountain, covered with snow nine months in the year, both in Klamath County; Mount St. Helen's, 3,500 feet, in Napa; Saddle Peak, 7,200 feet; Table Mountain, 8,000 feet; and Butte, at the head of South Fork, 9,000 feet in height, all in the Sierra Nevada Mountains; two double peaks, conspicuous landmarks, in Solano; and Oregon Hill, 2,800 feet high, in Yuba County. Near Vallecita, on Chyote Creek, in Calaveras County, is a striking display of volcanic action in the shape of what are called the natural bridges; two immense arches, thrown over the above-named creek, and covered with imitations of clusters of fruits and flowers, doubtless formed when the mass was first upheaved in a molten state. In the same vicinity is "Chyote Cave," a deep semicircular chasm, entered by a perpendicular descent of 100 feet, and then proceeding by a

gradual slope till it reaches a depth of nearly 200 feet below the surface, where you come to a chamber called "The Cathedral," from its containing two stones, resembling bells, which, when struck, produce a chiming sound. Proceeding 100 feet further, always on the descent, a lake is reached of great depth, and apparently covering many acres; but the exploration has not yet been carried beyond this point. The roof of the cave is studded with stalactites, assuming various fantastic forms.

THE YOSEMITE VALLEY.—One of the greatest and most popular objects of interest in California is the Yosemite Valley. We make the following extracts from a description of this remarkable valley, in the second volume of Professor J. D. Whitney's Geological Report:

"The Yosemite Valley is situated on the Merced River. It is about one hundred and forty miles in a direction a little south of east from San Francisco. It is nearly in the center of the State, north and south, and exactly midway between the east and west bases of the Sierra, here about seventy miles wide.

"The valley is nearly a level area, about eight miles in length and varying from a half to a mile in width. For the lower six miles its course is from north-east to south-west; the upper two miles are nearly at right angles to this, the angle of the bend being at the spot where the Yosemite Fall comes over the precipice on the north side. Below the expanded portion of the valley, the Merced enters a terribly deep and narrow canon, which is said to be inaccessible.

"The peculiar features of the Yosemite are, first, the near approach to verticality of its walls; next, their great height, not only absolutely, but as compared with the width of the valley itself; and, finally, the very small amount of debris, or talus, at the bottom of these gigantic cliffs. These are the great characteristics of the valley throughout its entire length; but beside these, there are many other striking peculiarities and features, both of sublimity and beauty, which can hardly be surpassed, if equaled, by those of any mountain scenery in the world.

"Tutucanula, (Great Jehovah,) or El Capitan, is an almost vertical cliff of naked, smooth granite. From its edge down to the valley below is about three thousand three hundred feet; it is usually called three thousand six hundred feet, which may be the extreme height of its slightly-rounded summit. It is undoubtedly one of the grandest objects in the Yosemite, and it would be difficult to find anywhere in the world a mass of rock presenting a perpendicular face so imposing and elevated. The pile of debris, at its base, is so insignificant in its dimensions, compared with the cliff itself, that it is hardly noticed at all from some points, in a general view of the valley, and this is one of the most striking and unique features of the scene, for it is a condition of things of the rarest possible occurrence. We know of nothing like it in any other part of the world.

"The Bridal Veil Fall, of which the Indian name is 'Pohono,' is about one thousand feet in height, and, during the season when the stream is fed by the melting snow on the mountains above, it is a wonderfully beautiful object. The body of water is not large, but is suffi-

cient to produce the most picturesque effect. As it is swayed backward and forward by the varying force of the wind, it is continually altering its form, so that it seems, especially as seen from a distance, to flutter like a white veil; hence the name, which is both appropriate and poetical.

"Proceeding up the valley, we find, a little above the Bridal Veil Fall, and on the same side, the prominent and massively sculptured pile to which the name of Cathedral Rock is given. It appears to be about three thousand feet in height. Behind this are the 'Cathedral Spires,' two slender and beautiful columns of granite, on the same gigantic scale as every thing else in this region, and which here are passed almost unnoticed, although, by themselves, in other parts of the world, they would be considered objects of the greatest interest.

"A couple of miles further up the valley, and on the other side, is the next cluster of peaks, a triple row of summits rising in steps one above the other; these are called the 'Three Brothers.' From the highest of these, nearly four thousand feet above the valley, there is the finest view which can be had of the Yosemite itself, and the whole surrounding region up to the crest of the Sierra.

"Opposite the Three Brothers is a prominent point which stands out near the angle where the valley makes its most distinct turn, and which, from its fancied likeness to a gigantic watch-tower, is called 'Sentinel Rock.' As seen from the south-west, it is a group of cliffs, of which the outside one has quite the form of an obelisk, very regular and beautiful, for at least a thousand feet down. The entire height of the Sentinel above its base is a little over three thousand feet.

"Three-quarters of a mile south-east of the Sentinel is the dome of the same name, four thousand one hundred and fifty feet high, and one of the most perfect of the dome-shaped masses of granite so peculiar to the Sierra Nevada. Its horizontal section is nearly circular, and its slope very regular and uniform on all sides. From its summit the view is, of course, extremely grand; it is especially fine in the direction of the Obelisk Groupe of mountains, and it commands the canon of the south fork of the Merced—'Illilonette,' as it is called by the Indians. From this point the glacial phenomena, and especially the regular and extensive moraines of that valley, are finely displayed. The profile of the Half Dome is best seen from the Sentinel Dome.

"From near the foot of the Sentinel Rock, looking directly across the valley, we have before us, if not the most stupendous feature of the Yosemite, at least the most attractive one, namely, the Yosemite Fall. About the time of the full moon, and in the month of May, June, or July, according to the dryness or forwardness of the season, is the time to visit the Yosemite, and to enjoy in their full perfection the glories of its numerous waterfalls. Those who go later, after the snow has nearly gone from the mountains, see the streams diminished to mere rivulets and threads of water; they feel satisfied with the other attractions of the valley, its stupendous cliffs, domes, and canons, and think that the waterfalls are of secondary importance, and that they

have lost little by delaying the time of their visit. This is not so; the traveler who has not seen the Yosemite when its streams are full of water has lost, if not the greater part, at least a large portion of the attractions of this region, for so great a variety of falls and cascades as those which lead into the valley from all sides has, as we may confidently assert, never been seen elsewhere—both the Bridal Veil and the Nevada Fall being unsurpassed in some respects, while the Yosemite Fall is beyond any thing known to exist, whether we consider its height or the stupendous character of the surrounding scenery.

"The Yosemite Fall is formed by a creek of the same name, which heads on the west side of the Mount Hoffman group, about twenty miles north of the valley. The volume of water varies, of course, with the season. At the ordinary stage of summer, through the months of June and July, it is about twenty feet wide and two feet deep, on the average. From the edge of the cliff, over which it is precipitated to the bottom of the valley, the perpendicular distance is, in round numbers, two thousand five hundred and fifty feet.

"The fall is not in one perpendicular sheet. There is, first, a vertical descent of fifteen hundred feet, where the water strikes on what seems to be a projecting ledge, but which in reality is a shell or recess, almost a third of a mile back from the front of the lower portion of the cliff. From here the stream finds its way in a series of cascades down a descent equal to six hundred and twenty-six feet perpendicular, and then gives one final plunge of about four hundred feet on to a low talus of rocks at the base of the precipice.

"As these various falls are in one vertical plane, the effect of the whole from the other side of the valley is nearly as grand, and perhaps even more picturesque, than it would be if the descent was made in one sheet from the top of the cliff to the bottom. The mass of water in the fifteen hundred feet fall is too great to allow of its being entirely broken up into spray, but it widens very much as it descends, and as the sheet vibrates backward and forward with the varying pressure of the wind, which acts with immense force on this long column of water, the effect is indescribably grand, especially under the magical illumination of the full moon. The cliff a little east of the edge of the Yosemite Fall rises in a bold peak to the height of three thousand and thirty feet above the valley.

"About two miles further up from the falls just noticed, the main valley of the Yosemite comes to an end, and runs out into three distinct canons, each of which, however, has new wonders to disclose. The Merced River keeps the middle of one of these, and its course here is about the same that it was below, or nearly west. In the left hand, or north-western canon, the Tenaya Fork comes down; in the right-hand one, the South Fork, or the Illionette. Following up the Tenaya Fork, we have, on the right hand, just at the entrance of the canon, that grandest and loftiest mass of the Yosemite Valley, called the Half Dome. This has been in sight, however, through all the upper part of the valley, above the Yosemite Fall, and is a conspicuous point from all the region around. It is an inaccessible crest of granite, rising to

the height of four thousand seven hundred and thirty-seven feet above the valley, the face fronting toward Tenaya Creek being *absolutely vertical* for two thousand feet down from the summit. The whole appearance of the mass is that of an originally dome-shaped elevation, with an exceedingly steep curve, of which the western half has been split off or has become engulfed. Hence the name, which is one that seems to suggest itself at first sight of this marvelous crest of rock. From all the upper part of the valley, and from the heights about it, the Half Dome presents an aspect of the most imposing grandeur; it strikes even the most casual observer as a new revelation in mountain forms; its existence would be considered an impossibility if it were not there before us in all its reality; it is a unique thing in mountain scenery, and nothing even approaching it can be found except in the Sierra Nevada itself.

"The North Dome, on the opposite side of the valley of Tenaya Creek, is another of these rounded masses of granite, of which the concentric structure is very marked. It is three thousand five hundred and sixty-eight feet in elevation above the valley, and is very easy of ascent from the north side. At the angle of the canon, appearing as the buttress of the North Dome, is the Washington Column, a grand perpendicular mass of granite, and by its side the Royal Arches, an immense arched cavity formed in the cliffs by the giving way and sliding down of portions of the rock, the vaulted appearance of the upper part of it producing a very fine effect.

"Further up the canon of Tenaya Creek is a little lake, called Tiayaac; it is surrounded by the most picturesque cliffs, having the great Half Dome overhanging its eastern side.

"The canon of the Merced, above the Yosemite Valley proper, rises very rapidly in the distance of about two miles, when it attains the level of the surrounding plateau. In these two miles the river descends one thousand nine hundred and eighty feet, making, besides innumerable cascades, two grand falls, which are among the greater attractions of the Yosemite, not only on account of their height and large body of water in the river during the earlier part of the season, but also because of the stupendous peaks and cliffs by which they are surrounded.

"The first fall reached in ascending the canon is the Vernal or Piwyac. It is a simple, perpendicular sheet, four hundred and seventy feet in height. The rock behind the Vernal Fall is a perfectly square cut mass of granite, and it is wonderful to see how little any eroding effect of water can be traced in its outline.

"Ascending to the summit of the Vernal Fall by a series of ladders, and proceeding a mile further up the river, we come to the last great fall of the Merced, namely, the Nevada, or the 'Yowiye' of the Indians. The total descent from the edge of the Nevada Fall to that of the Vernal is eight hundred and ninety-four feet, of which six hundred and thirty-nine is in one perpendicular sheet. The Nevada Fall, however, has a peculiar twist to it near the summit, caused by the mass of water falling on a projecting ledge, which throws it off on one

side, adding greatly to the picturesque effect. This fall is certainly to be ranked as one of the finest cataracts in the world, taking into consideration its height, the volume and purity of the water, and the whole character of the scenery which surrounds it, Mount Broderick alone being an object of which the fame would be spread world-wide if it were not placed, as it is, in the midst of so many other wonders of nature.

"There are also grand cascades in the South Fork Canon, the scenery throughout the whole of which is little inferior to that of the other portions of the Yosemite. In the angle formed by the Merced and the South Fork Canon, and about two miles south-south-east of Mount Broderick, is the high point called the South Dome, and also, of later years, 'Mount Starr King.' This is the most symmetrical and beautiful of all the dome-shaped masses around the Yosemite; but it is not visible from the valley itself. It exhibits the concentric structure of the granite on a large scale; although its surface is generally smooth and unbroken, its summit is absolutely inaccessible.

"Having thus briefly noticed some of the more prominent objects of interest about the Yosemite, we may add a few words in regard to the valley itself. This is an almost level area, the fall from one end to the other of the valley proper being only about fifty feet. The width of the bottom land, between the slopes of debris at the bottom of the cliffs, is only about half a mile; below El Capitan, however, it is nearly twice as much. Its smooth surface and brilliant color, diversified as it is with groves of trees and carpeted with showy flowers, offer the most wonderful contrast to the towering masses of neutral and light purple-tinted rocks by which it is surrounded. Its elevation above the sea is, according to our measurements, four thousand and sixty feet; and the cliffs and domes about it are from seven thousand to nine thousand in altitude above the sea level. All will recognize in the Yosemite Valley a peculiar and almost unique type of scenery. Cliffs absolutely vertical, like the upper portions of the Half Dome and El Capitan, and of such immense heights as these, are, so far as we know, to be seen nowhere else. The dome form of mountains is exhibited on a grand scale in other parts of the Sierra Nevada; but there is no Half Dome, even among the stupendous precipices at the head of King's River."

THE BIG TREES.—Another great object of interest is the big trees of California. The grove of these trees in Calaveras County was first discovered, and has been frequently described. Other similar groves have been recently discovered, and some fifteen or twenty are now known to exist among the forests on the western slopes of the Sierra Nevada in Southern California. One of these groves that has attracted much attention of late years is near the Yosemite Valley, and not far from the border line of Mariposa and Fresno Counties. These big trees are scattered in groups among pine and cedar forests through a space of several miles. They number about six hundred, and the scientific name now applied to them is *Sequoia Gigantea*, being considered of the same genus as the redwood. Their diameter is from thirty to forty feet, and they are rarely less than two hundred and fifty in height. One of

them, called the "Grizzly Giant," runs up ninety feet without any perceptible diminution of its bulk, and then sends out a branch six feet in diameter. The bark of these large trees is described as of an exquisitely light and delicate cinnamon color, fluted up and down the long, straight, gradually tapering trunks like Corinthian columns in architecture. The tops of the trees are perfect cones, and the bright, light evergreen leaves can be distinguished at a great distance. The wood is in color of a deep, rich red, showing the similarity of these trees to that species so common on the Coast Range of mountains on our Pacific coast, and known as redwood.

The exact and scientific measurement of some of the largest of the big trees in Calaveras County, made in August, 1865, resulted in finding the height of the tallest one, named "T. Starr King," to be three hundred and sixty-six feet, and its circumference to be fifty feet. The tree with the largest trunk, named "Edward Everett," measured (six feet above the roots) sixty-four feet in circumference. Its height was two hundred and sixty-five feet. The paper from which we gather the above facts says: "The big stump covered by the Stump House has a mean diameter of twenty-three feet and one inch and a third, and its least possible age is 1,380 years, allowing only ten annual rings per inch. The extremes are ten and sixty, and, comparing the mean thirty-five per inch, the tree must have been 4,830 years old."

CLIMATE, SOIL, AND PRODUCTIONS.—The climate of California is much milder, even at considerable elevation, than in the same latitude on the Atlantic border, and the winters are short and seldom severe. At San Francisco the mercury seldom rises above 80°, but has, at times, risen to 98° in September; yet the temperature often varies 30° in 24 hours; in the rainy season the thermometer rarely sinks below 49°. On the coast, generally, snow is a rarity. The summers of San Francisco, and other parts near the sea, are more disagreeable than the winters, owing to the prevalence of north-west winds from the ocean, which bring with them chilling fogs. In the hot season these winds set in at San Francisco about 9 or 10 o'clock, and are poured through the Golden Gate directly upon the city, producing a chilling effect contrasted with the heat of the morning. The sheltered valleys along the coast enjoy a delicious climate, equally removed from the chilliness of the exposed parts of the coast, and the heat of the great valley between the coast range and the Sierra Nevada. In any country ranging through 10° of latitude, the difference of temperature would be considerable; but in California this difference is greatly increased by the peculiarities of its surface, insomuch that no general statement would be at all correct. The northern portion has more of the chilling fogs of the warm season, and more and longer rains in the wet season, than the southern portion; and in the great valleys of the Sacramento and San Joaquin, the heat is much greater in summer than near the coast, the mercury not unfrequently rising to 112° and 120° at Suttersville. Owing, says Mr. Tyson, to the extreme dryness of the air, it does not produce that prostrating effect that a much less degree of heat would produce in the Atlantic and Mississippi States. The nights he represents as never so hot as to pre

vent sleep. The Sierra Nevada precipitates whatever moisture has been left in the air after the passage of the Coast Range, and sends it into Utah dry and warm. The terms winter and summer, as understood east of the Rocky Mountains, will not apply here, and we must resort to the tropical names of wet and dry seasons. The rains begin in the north, says Tyson, early in the autumn, and extend slowly southward, reaching San Francisco about a week before the 1st of December, and San Diego a month later, where the rainy season is over by February, and retro-grading, continues later into the year as we proceed north, where the rain not only lasts longer, but falls in greater quantity in a given time. During the dry season scarcely a cloud is to be seen in the great valley for a month at a time.

According to observations made during seventy-five days by the exploring expedition at San Francisco, between August 18 and October 31, north-west winds prevailed thirteen days, south-west forty-four, west four, south-east five, and calm five days. Mean temperature, from May 27 to June 6, 61° , maximum 86° , minimum 48° ; while at New Helvetia, during the same period, the thermometer rose to 114° . According to observations made by Fremont, in San Joaquin Valley, between the middle of December and the middle of June, the mean was 29° at sunrise, and 52° at sunset; and from the 10th to the 22d of March, 38° and 26° , at sunrise and sunset respectively; at Deer Creek, 40° north latitude, between March 30 and April 4, mean at 2 P. M. 59° ; at the Three Buttes, in 39° north latitude, at an elevation of 800 feet, 90° at 2 P. M. In latitude $35^{\circ} 30'$, mean between December 27 and January 12, 60° at noon; and near Monterey early in March, 62° at 2 P. M., at a height of 2,700 feet.

According to Captain Wilkes, not more than 12,000 square miles of California are susceptible of cultivation. A recent writer computes the arable land at 42,420 square miles. This opinion will probably have to be very much modified with the progress of knowledge, in developing the agricultural capabilities of the country, which now lie much neglected in the general rush to "the diggings." Enough has been done to show marvelous fertility in the soil, both as to variety, quantity, and size of the products. In the south—and in some of the low interior valleys as far north as Napa—figs, dates, sugar-cane, and even bananas flourish; and most tropical plants may be grown in this region where irrigation can be practiced, which, in many parts, is absolutely necessary to successful agricultural operations. The sheltered valley between the Sierra Morena and Coast Range, south of the Bay of San Francisco, is peculiarly favorable to plants and fruits requiring a mild climate. The southern country is highly favorable to the grape. Peaches, pears, apples, cherries, quinces, and apricots flourish. Wheat and rye yield largely in many parts north of Point Conception, these crops maturing so early as to be little injured by the dry season. Oats grow wild in great quantities in the Sacramento Valley, and westward of it. They cure in the dry season and form excellent fodder, as there is no moisture to cause decomposition. Hemp, rice, tobacco, cotton, and coffee, all can, it is believed, be cultivated successfully, the first three having been

tried. According to the State census of 1852, there were 110,748 acres of land under cultivation, the greater portion of which is in the middle and west side of the State, between 36° and 40° north latitude. The largest yield was of barley, 2,973,734 bushels; potatoes, 1,393,170; wheat, 291,763; oats, 100,497; Indian corn, 62,542; beef cattle, number, 315,392; cows, 104,339; working oxen, 29,065; horses, 64,773; mules, 16,578; sheep, (in twenty counties) 35,867; hogs, 88,071, and poultry, 78,753.

According to the United States Census of 1860, there were in California 2,430,882 acres of improved land in farms, and 6,533,858 acres of unimproved land in farms. The cash value of the farms was \$46,571,994, and of farming implements and machinery, \$2,443,297. The number of horses in the State was 160,395; asses and mules, 13,744; milch cows, 98,859; working oxen, 31,527; other cattle, 952,048; sheep, 1,075,718, and swine, 453,523. The value of the live stock was \$36,601,154, and the value of the animals slaughtered during the year was \$3,562,887.

There were produced in the year 5,946,619 bushels of wheat, 51,244 of rye, 524,857 of Indian corn, 957,684 of oats, 1,800 pounds of rice, 3,150 pounds of tobacco, 2,681,922 pounds of wool, 184,962 bushels of peas and beans, 1,647,293 of Irish potatoes, 158,001, of sweet potatoes 4,307,775 of barley 36,486 of buckwheat.

The value of the orchard products for the year was \$607,459, the number of gallons of wine produced was 494,516, and the value of the garden products for market was \$1,074,143.

There were produced during the year 3,338,590 pounds of butter; 1,564,857 pounds of cheese, 306,741 tons of hay, 570 pounds of beeswax; 2,370 pounds of honey. The value of the home-made manufactures of the year was \$365,674.

The richness of the California soil is such that all trees, shrubs and grains which can withstand the long dry season, by sending their roots downward below the hard crust which forms on the surface in the summer months, yield most profusely, and the fruits and root crops are of such dimensions as are entirely unknown elsewhere. A pear grown in the orchard of E. L. Beard, Esq., at San Jose Mission, in the summer of 1862, was exhibited in New York city, in January and February, 1863. It was twenty inches in circumference one way and sixteen inches the other, and weighed on its arrival three pounds and seven ounces. Other fruits attain to similar gigantic dimensions, and yet retain their flavor. The potatoes, beets, turnips, and other root crops are of extraordinary size and excellence. The wheat of California contains a very large amount of gluten, rendering it more nutritious than that of the wheat-growing States east of the Rocky Mountains, and requiring a different treatment in order to make bread of it.

GRAPE-GROWING AND WINE-MAKING.—The grape is largely cultivated, and the California wines have attained a high reputation. It was stated some years since, on good authority, that California had five million acres suited to grape culture; that in a considerable part the vine flourishes better than in the most favored regions of Europe,

so that when, in a generation or so, this shall be planted with vines, the wine product of that State will be worth, on the spot, at only twenty-five cents a gallon, more than five hundred millions of dollars. Making all due allowances for the enthusiasm of a sanguine vine-grower, and guided only by what has been already demonstrated, it is certain that the production of wine is to become a leading branch in the industry of the Golden State. We extract from Harpers' Magazine, for June, 1864, the following sketches of a grape-growing and wine-making establishment in California:

"The Buena Vista Agricultural Association is an incorporated company, composed chiefly of residents of San Francisco. The estate has the largest vineyard in the world, and upon it the business of wine-making has reached a higher development, in so far as the application of machinery is concerned, than in any other vineyard in America. There is a greater variety of grape, a greater variety of production here than in any other vineyard in the State, and its extent and production are rapidly increasing.

"The estate of the Association, lying within thirty miles of San Francisco, contains 6,000 acres in one body, bordering on the town of Sonoma, and running six miles eastward toward Napa City. About 4,000 acres are valley land, and the remainder well timbered and hilly. The land is volcanic, and varies in quality throughout the domain. Some is dark red, burned by volcanic fires; some is gray, yellow, dark-blue, and black. This variety renders the estate so eminently qualified for the production of the grape; for all foreign vines may be planted in the same soil that they had in their native place. The soil mostly contains magnesia, and to this may be attributed the fact that Buena Vista produces from its imported vines wines equal to celebrated European varieties, especially for the making of champagne.

"Of the 6,000 acres about 400 are planted in vines; 200 of them with mission or native vines—as those are called which were imported from Spain by the Catholic missionaries, from 1715 to 1740—and 140 with vines imported from all parts of Europe. The vines are planted eight feet apart, so that a two-horse plow can easily pass between them. Of the 290,000 vines, 1,500 were planted in 1832, 6,700 in 1854, 13,000 in 1857, 54,000 in 1858, 30,000 in 1859, 70,000 in 1860, and 135,000 in 1861. The vines thirty-one years old are healthy, and bear the most abundantly. They were planted by an Indian, who sought to establish a home under the law of the Mexican Republic, which offered grants of land to red men engaged in the cultivation of the soil. The estate was purchased by Mr. A. Haraszthy, in 1856. Up to the time of his purchase, there were but 7,900 vines planted on the estate, and only in spots where they could be irrigated during the summer months. It was well known to Californians that vines were profitable, and never failed to bear; but it was universally believed that all vines required watering. There were but few spots where vines could be watered; therefore, but few vineyards were planted in California, and in Sonoma but two—the above-mentioned and that of Gen. Vallejo—about thirty acres altogether. When Mr. Haraszthy became proprietor

of the Buena Vista property, he at once planted 13,000 vines on lands without irrigating them, but using the plow instead of water, contending that, by stirring the ground repeatedly during the summer months, the moisture would be drawn from the atmosphere, and the plants would flourish in the loose soil. The old settlers of the valley felt sorry that the new proprietor should waste his money in so hopeless an enterprise. The vines, however, thrived, much to the amazement of the unbelievers, who then said that the vines might grow, but would not bear grapes without irrigation. They waited two years, when many of the more thrifty vines had grapes much finer and sweeter than those before raised on watered vines. Then every body began to plant, seeing that Mr. Harasrthy annually increased by thousands his plantation, which for grain culture was not worth a cent; and now the valley, which in 1856 had but thirty acres in vines, has more than 2,000 acres in thrifty vineyards. Land in the neighborhood of Buena Vista went up from six dollars to one hundred and thirty an acre.

"This impulse was not only felt in Sonoma, but throughout the upper part of California. According to the State statistics taken in 1856, there were 1,540,134 vines, large and small; and of these the old Spanish settlements of Los Angeles had 726,000 vines; the remainder were scattered through the State in old missions and Spanish ranches, where they were irrigated. In 1862 the standing committee of the Legislature on vines reported 20,000,000 of vines planted throughout the State."

A more recent account says that the yield of the vineyards in California is about 200 pounds of grapes to the vine, on an average. In some instances vines but five years old have yielded 800 pounds. In 1864, there were, according to this authority, 12,592,688 vines growing in the State, and nearly 4,000,000 more were set in 1865. The entire produce of the vineyards of the State in 1862 is given at \$5,050,000.

FOREST TREES.—The variety of timber in California is not great, but it is large in size and abundant in quantity. The Lambertine pine, or fir, on the mountains, of gigantic size; the redwood (the "Palo Colorado" of the Mexicans, a tree of huge dimensions, a species of cypress; Col. Fremont mentions one 21 feet in diameter;) pine, spruce, cedar, white and live oak, sycamore, maple, ash, beech, and laurel are found in all sections of the State, but most abundantly in the north and central portions, especially on the western slope of the Nevada Mountains. A specimen of *arbor vitæ*, recently felled, measured about 320 feet long and 92 in girth, and yet another 410 feet in length and 110 in circumference. A species of cotton-wood is found.

ANIMALS.—Among the animals are the moose, elk, antelope, black-tailed and jumping deer, mountain sheep, grizzly, black, and barren ground bear, the cougar, common, grey, dusky, black, and prairie wolf, the northern lynx, red lynx, tiger-cat, cuyote, (an animal between a fox and a wolf, which preys upon sheep and pigs,) a black wildcat, red, and common fox, wolverine, (a sullen, savage animal, which partakes of the nature of the bear, fox, and weasel,) badger, raccoon, marmot, squirrel; a species of rat, living in the mountains, and building itself a brush hut 4 or 5 feet in height, about the size of a muskrat, web-footed, with a

fine colored fur; pouched rat, mice, hares, martens, and rabbits are the principal quadrupeds. The sea and land otter, common hair seal, beaver, and muskrat are the principal fur-bearing animals. Many wild horses roam over the native pastures. Large herds of cattle, but of an inferior breed, were formerly raised principally for their hides, horns, and tallow. The elk, the grizzly and other bears, and deer are abundant. Birds, except aquatic fowls, are not abundant in California. The California and black vultures, (the former 4 feet in height, and 10 from tip to tip of its wings, is a solitary bird, building its nest on the top of the mountain,) the turkey-buzzard, golden and bald eagle, fishhawk, gerfalcon, goshawk, great horned and great snow-owl, black raven, shrike, robin, brown thrush, lark, redwing, snow-bunting, crossbill, magpie, three species of jay, woodpecker, humming-bird, swallow, night-hawk, kingfisher, grouse of various kinds, geese, ducks, widgeons, teal, crane, curlew, snipe, sandpiper, plover, tattler, godwit, gull, phalarope, penguins, swan, (the largest bird of California, and a bird of passage,) white pelican, and albatross are the principal birds. Among the fishes are the seal, sturgeon, bass, mackerel, crawfish, blackfish, sardines, (in sufficient numbers to become an article of export,) codfish, porgy, bonito, pilchard, skate; and, out at sea, the whale and porpoise, clams, oysters, lobsters, crabs, halibut of a large size, sharks, a large fish of a dingy red color off the soundings, salmon in great abundance, (large in size and excellent in quality,) salmon-trout, trout, smelts, and a large fresh-water fish from $1\frac{1}{2}$ to $2\frac{1}{2}$ feet long. Among reptiles are the striped, black, spotted, and rattle snakes, the adder, and several species of water-snake.

MANUFACTURES.—The national census of 1860 reported 3,505 manufacturing establishments in California, in which were invested a capital of \$23,682,593. The value of the raw material annually used in the same, including fuel, was \$16,558,636. The average number of male hands employed was 23,803, and of female hands, 463. The annual manufactured products were valued at \$59,500,000.

COMMERCE.—The commercial city of San Francisco has sprung up as if by magic, and its harbor is thronged with shipping from Europe, Asia, Australia, and the Atlantic coast of the United States. At the moment we write, in all our great Atlantic ports, large numbers of the first-class ships are loading with valuable cargoes for California. Several lines, employing above 40 immense ocean steamers, of from 900 to 3,000 tons burden, crowded with passengers, to a degree unparalleled in the history of navigation, weekly arrive at and depart from San Francisco at the one terminus, and New York and New Orleans at the other. With the exception of the export of gold, California's commerce is almost wholly an importing one, the frames and materials of houses themselves being imported. The commerce of California threatens to revolutionize the trade of the east, and San Francisco seems likely to become the Alexandria of modern times, the halting-place of the transit trade of Asia, in its new western route to Europe, to open commerce (and with it civilization) to the isles of the Pacific, and to infuse even into the Chinese the spirit of progress.

POPULATION.—No member of the American confederacy—perhaps we might safely say, no portion of the earth—has so mixed a population as California, adventurers being found from almost every quarter of the globe; even the exclusive empire of China has here its representatives by tens of thousands, whose patient industry makes them useful inhabitants. The Indians also form a large portion of the population.

According to the United States census of 1860, California had 270,510 white males, and 105,398 white females; total whites, including taxed Indians and Chinese, 375,908. It had 2,827 free colored males, and 1,259 free colored females; total free colored, 4,086. The aggregate population of the State was 379,994. The total vote of California for President, in 1864, was 105,975. The whole population of the State was estimated in 1865 at 500,000. There were in California in 1860, 37,903 Indians and Chinese, of whom 23,140 were Chinese.

STATE DEBT.—Governor Low, in his message to the Legislature, estimated the total debt of the State, on the first of January, 1864, at \$5,365,640; but for some reason he did not include the debt on the Indian War Bonds and the donation to the Pacific Railroad. These added and the debt was \$6,084,509.25.

EXECUTIVE GOVERNMENT.—The Executive State officers of California are a Governor, Lieutenant-Governor, Secretary of State, Controller, Treasurer, Attorney-General, Surveyor-General, and Superintendent of Public Instruction, all elected by the people for four years. The Governor's salary is \$7,000, in gold. The present Governor is Frederick F. Low, of Yuba, whose term of office expires in December, 1867.

HISTORY.—According to some accounts, California was first visited by Cabrillo, who landed at San Diego in 1542, and afterward by Sir Francis Drake, in 1578. The first mission was founded by some Spaniards, in 1769. After the Mexican revolution, California formed a province of that republic until 1836, when the inhabitants rebelled, drove out the Mexicans, and formed an independent congress. After having been the scene of several sanguinary contests during the war with Mexico, by the treaty of peace in 1848, it became a part of the United States, and in 1850 was admitted into the American confederacy as a sovereign State, since which time its almost daily history has been blazoned to the world, far and near, in the newspapers of the day. During its occupancy by the Spaniards, it was resorted to by the Americans, principally for the hides and tallow cured at the Jesuit missionary stations, and by the Russians in the pursuit of the seal.

CITIES AND TOWNS.—*San Francisco*, the commercial metropolis of California, and the queen city of the "Far West," is situated on the west shore of the magnificent bay from which it derives its name—latitude 37° 47' 35" north; longitude 122° 26' 15" west. It stands in a plain about half a mile wide, gently inclined toward the bay, with numerous hills behind it. The soil on which the city is built is very sandy; and in the vicinity, more particularly toward the north, are a number of sand-hills. It is regularly laid out, the streets crossing each other at right angles. The houses till recently were mostly frame; but

since the destructive fires that have occurred several times, laying the greater part of the town in ruins, brick and iron are becoming more extensively used.

The city was originally built around a semicircular bay, having Rincon Point on the south, and Clark's Point on the north, these two points being about a mile apart. All the space between is now built up, the warehouses and wharves being supported by piles driven into the water. Clark's Point is the termination of Telegraph Hill, having an elevation of 1,000 feet or upward, and from the summit of which a very extensive view may be had of the surrounding country. Directly in front of the city, but distant five or six miles, is Goat Island, which is nearly a mile in length. It is a barren, rocky place, except on the east side, where there is some cultivation among the valleys. The wholesale business part of San Francisco is toward the city front. Davis street is next to the bay; then advancing west, one meets Front, Battery, Sanson, Montgomery, Kearney, Dupont, Stockton, and Powell streets; Vallejo, Broadway, Pacific, Jackson, Washington, Clay, Commercial or Long Wharf, Sacramento, California, Pine, Bush, and Market streets, running east and west, are included within the business section of the city. Montgomery street is a wide, handsome thoroughfare. On it are situated the establishments of the bankers and brokers, and nearly all the newspaper offices in the city. It is also the fashionable promenade. On Stockton and Dupont streets, toward the south part of the city, are many fine residences built of brick; west of Stockton, and on the surrounding hills, are many handsome houses of wood, but being separated from the rest of the city, they are comparatively secure in case of fire. Most families have their residence in the outskirts, or in the rear of the town. The principal streets and sidewalks are paved with plank and heavy timber. In the center of the city is a public square or *plaza*.

San Francisco has a custom-house, a branch mint, a fine exchange, a marine hospital, a splendid musical fund hall, and six theaters. The new custom-house is a very extensive and substantial building. It is built on piles, and is estimated to have cost, including the site, about \$8000,000. The mint was completed in March, 1853, and cost about \$300,000. The entire cost of the marine hospital was about \$400,000. Among the theaters, the Metropolitan, erected during 1854, is the most magnificent. It will comfortably seat 2,000, and accommodate in all about 2,500 persons. There are some 25 churches in the city, and 13 daily newspapers, besides other publications.

San Francisco is supplied with water from Mountain Lake, situated about $3\frac{1}{2}$ miles west of the city. The water is introduced into the town on its own level, at an elevation of about 130 feet above the sea. The cost of the entire work is estimated at \$800,000. Gas is employed for lighting the streets. The gas-works have recently been completed, and are capable of producing 50,000 cubic feet every 24 hours.

San Francisco has regular communication by steamers with Panama and San Juan del Sur, while several lines of steamboats are constantly running between this city and Sacramento and Marysville; and there are also lines plying between it and Portland, Victoria, and Olympia.

An ocean steamer runs to Mazatlan, and others to San Pedro, in the southern part of the State. Steamers also run to Sonoma, Napa, Suisun, Alviso, Petaluma, and Stockton.

In the south part of the city, three miles from the City Hall, are the buildings of the old mission of San Francisco. The main structure is the church, deserving notice as a relic of early times. It is built of adobe or unburned brick, and was erected in 1778. Four miles west of the City Hall, and on the south shore of the Golden Gate, is Fort Point, the chief defense of the entrance, which is there a mile wide. Aleatras Island, which contains another fortification, commanding both the entrance and the city, is two miles north from the City Hall. The City Hall is three stories high, and has a fine front of Yellow Sandstone. It was built for a theater, and was purchased by the city in 1852 for 200,000.

San Francisco contained in 1860 twenty-six common schools, sustained entirely by the public funds; and during the year ending July 1, 1860, they had an average daily attendance of 2,830. The whole number of children in the city between the ages of four and eighteen years was 7,776. Of the twenty-six schools, one was a high school, another a school for pupils of African blood, one for Chinese children, and two evening schools, one of the last being for foreigners. The schools were said to be equal to any in the United States. There were also about 3,000 children attending private schools. The Germans, French, Swiss, Italians, Spanish, Americans, Scandinavians, Illyrians, German Jews, Polish Jews, and Irish had each a mutual benevolent society. The Chinese had three or four societies which took care of their own sick.

The population of San Francisco, as given in the census of 1860, was 56,802. Since that time it has greatly increased. A census taken in the fall of 1862 gave the whole population of the city at 91,825. Of these 32,000 were males over twenty-one, and 17,500 were females over eighteen years of age. The number of Chinese was 3,250; of other foreigners, 4,200, and of colored persons, 1,875. During the year 1862, 27,861 persons arrived at San Francisco by sea, of whom 8,188 were Chinese, and 11,711 left the country, of whom 2,795 were Chinese. The net gain of the population by seaward immigration was, consequently, for the year, 16,150.

The chief business of San Francisco is commercial. The amount of treasure received at that port in 1862 was \$49,375,462, and the amount shipped from that port, \$42,561,761. The exports of California produce other than treasure, from the same port during the year, amounted to \$6,211,788, which included wheat and flour, equivalent to over 4,000,000 barrels of flour and 22,615 bales of wool. During the year the tonnage of vessels which arrived at the port of San Francisco was 534,670 tons, and 497,345 tons were cleared from the port in the same time. The freight money paid on the cargoes of foreign and eastern ships was \$3,496,978.

The first settlement at San Francisco was made by the Spaniards about the year 1778. The place was then called Yerba Buena, or

"good herb," because an herb of this name, supposed to possess great medicinal virtues, was found growing abundantly on the neighboring hills. The first houses were built of adobes, or sun-dried bricks. In 1839 it was laid out as a town, the few houses having previously been scattered without regularity. It contained in 1845 about 150 inhabitants. About this time it began to attract the attention of some adventurous Americans, and the population increased in two years to nearly 500. It retained the name of Yerba Buena until it was occupied by the Americans. The first discovery of gold was made at Sutter's settlement, then called New Helvetia, in December, 1847. Early in 1848 the news spread to the four quarters of the globe, and immediately adventurers from every land came thronging to this new El Dorado. The magnificent harbor of San Francisco made this port the great rendezvous for the arriving vessels, and from this period dates the extraordinary increase and prosperity of the Californian metropolis. In the first two months of the golden age, the quantity of precious dust brought to San Francisco was estimated at \$250,000, and in the next two months at \$600,000. In February, 1849, the population of the town was about 2,000; in August it was estimated at \$5,000. From April 12, 1849, to January 29, 1850, there arrived at this port by sea 39,888 emigrants, of whom 1,421 were females. In the year ending April 15, 1850, there arrived 62,000 passengers. In the first part of 1850 San Francisco became a city.

Sacramento City, the present capital of California, is situated on the left bank of the Sacramento River, a little below the mouth of the American River, in the midst of a level and extremely fertile country, 140 miles by water north-east of San Francisco. It is regularly laid out, the street nearest the river being called Front street, the next Second, and so on; these are crossed by others at right angles, distinguished by the letters of the alphabet. J and K streets are the principal business streets of the city. Till within a few years nearly all the houses were of wood; but recently a more substantial mode of building is coming into use. In Sacramento and its vicinity are perhaps the finest gardens in California. As a center of commerce, Sacramento City possesses great advantages. It is accessible for steamers and sailing vessels of a large size, at all seasons of the year; while not only the Sacramento River itself, but its important affluent, the Feather River, is navigable for small steamboats far above into the interior of the country. These advantages have rendered this town the principal entrepot for supplying with provisions the great mining region of the north. The amount of merchandise daily landed on the wharves of Sacramento City in September, 1854, was estimated at 530 tons, of which 150 tons were shipped by the up-country steamers. The regular weekly sales of produce and merchandise were stated to be \$1,500,000, and the monthly receipts of gold-dust \$2,750,000. The number of stage passengers from Sacramento City to the mines was estimated at 97,000; of wagon passengers, 214,000; travelers on foot and horseback, 97,000; drivers and packmen, 187,000; total, 595,000. Five or six newspapers are issued here.

Steamers run every day from Sacramento to San Francisco and Marysville, and twice a week, or oftener, up the Sacramento River to Red Bluff. During 1860 there were 571 arrivals of schooners and 391 of sloops at Sacramento. There were twenty-five steamboats owned in the city. The California Stage Company, which had its chief place of business in Sacramento, had a capital of \$1,000,000. Stages started every morning for Portland, in Oregon, Marysville, Nevada, Downieville, Stockton, Jackson, Mokelumne Hill, and other leading towns in the central mining districts. All the supplies for Washoe, and most of those for the Esmeralda mining districts, passed through Sacramento. The population of the city in 1860 was 13,788.

Marysville is the capital of Yuba County, and lies on the north bank of the Yuba River, one mile above its junction with the Feather River, and fifty north from Sacramento. It contained, in 1858, a population estimated at 8,000. But in the rainy season its population is greatly increased by the influx of miners. It has regular communication with San Francisco by steamboat and stage lines.

Monterey, the capital of the county of the same name, is on the south side of Monterey Bay, 94 miles south-east from San Francisco. It has a fine harbor, affording an excellent anchorage, but exposed to the prevailing north-west winds. The site of the town was selected in 1770, by Father Junipero Serra, for a missionary station. It was the capital of California till 1847. The old town is built chiefly of adobe, the modern of wood.

Los Angeles, capital of the county of the same name, is situated on the Los Angeles River, 30 miles from its mouth, and 350 south-east from San Francisco. It was founded in 1781, and called Puebla de los Angeles, "City of the Angels," from the beauty of its situation and the pleasantness of its climate.

San Diego, capital of San Diego County, lies on the bay of the same name. It is noted as having been the first civilized settlement in California.

San José, the capital of Santa Clara County, and formerly of the State, is fifty miles south-east from San Francisco. It is in Santa Clara Valley, seven miles from the head of San Francisco Bay, on which it has a number of vessels. The New Almaden quicksilver mines are south of San Jose, and not far from it.

ERUPTION OF MOUNT HOOD—EARTHQUAKE.—Mount Hood, in Oregon, which had not previously since the settlement of California, been in a state of eruption, commenced, on the 23d of September, 1865, giving signs of activity, and continued for a month or more to belch forth smoke and flame. On the 8th and 9th of October following, several shocks of an earthquake were felt along the whole coast, from Petaluma to Santa Cruz. It was most severe at San Francisco, where the injury to buildings, etc., was estimated at more than \$200,000. Some of the shocks were accompanied with a loud rumbling noise in the earth, and the crash of falling walls, the ringing of bells, the barking of dogs, the screams of fainting women, and the general stampede of men and horses in every direction.

EDUCATION.—The statistics of the California public school system for the year 1865 were as follows: Number of children between the ages of four and eighteen years, 95,067; in attendance in the public schools, 41,370; in private schools, 12,470. The total amount received for school purposes was \$870,406.69, an increase over the receipts of 1863 of \$286,350.92. The number of schools in the State was 947, taught by 1,155 teachers, in 685 school-houses, of which 69 were rented buildings. There were eight colored schools, with an attendance of 278 children.

There were school funds in each county arising from the sale of the school sections. The State had also a school fund derived from the sale of swamp and other lands, amounting to \$696,020, and yielding an income of \$48,721.40. The State school tax was half a mill on the dollar, and there was also a county tax the minimum of which was \$3 per scholar. The normal school was in a flourishing condition, and had proved of great advantage to the teachers in the schools, in elevating the standard of their qualifications. There were numerous chartered colleges in the State. Some of these had maintained a severe struggle for existence from insufficiency of resources, but had succeeded in attaining a respectable rank among the collegiate institutions of the country; the College of California, especially, occupied a very high position. Some of the Roman Catholic colleges were giving very full courses of instruction.

CORRECTIONAL INSTITUTIONS.—The State Reform School had, in 1865, 47 children under training, and had met with encouraging success. There was also an industrial and reformatory school at San Francisco, receiving aid from the State. The State-prison had been greatly improved in its management. The prisoners no longer manifested the spirit of insubordination which some time previously had issued in a mutiny, and was put down at a fearful cost of life. Under the provision for reducing the term of imprisonment as a reward for diligent labor and good behavior, the greater portion of the convicts were striving to gain this reduction of their term of imprisonment.

MINNESOTA.

MINNESOTA was admitted into the Union in 1858, making it the thirty-second State and the nineteenth admitted under the Federal Constitution. It is bounded on the north by British America, the dividing line being formed west of the Lake of the Woods by the forty-ninth parallel of north latitude, and east of that lake by the Rainy Lake River, Rainy and other lakes, and Pigeon River; east by Lake Superior and Wisconsin, from which it is separated by a line drawn due south from the first rapids in the St. Louis River to the

St. Croix River, and by the St. Croix and Mississippi Rivers; south by the State of Iowa, and west by Dakota Territory, from which it is divided by the Red River of the North, the Bois des Sioux River, Lake Traverse, and Big Stone Lake, and a line drawn directly south from the outlet of the last-named lake to the Iowa boundary.

Minnesota lies between forty-three degrees thirty minutes and forty-nine degrees of north latitude, and twelve degrees twenty-nine minutes and twenty degrees five minutes of longitude west from Washington. Its extreme length from north to south is three hundred and eighty miles, and its breadth varies from one hundred and eighty-three miles in the middle, to two hundred and sixty-two miles on the south line, and three hundred and thirty-seven miles near the north line. The area of the State is 81,259 square miles, or 52,005,760 acres, being two and seventy-three hundredths per cent. of the total area of the United States.

FACE OF THE COUNTRY.—Lying near the center of the continent, Minnesota occupies the summit of the interior plain of North America, formed by the counterminous basins of the Mississippi, the St. Lawrence, and the rivers flowing into Lake Winnipeg, and at once incloses the head-waters and the navigable limits of the three great converging river systems of the continent. The group of low sand-hills in the north-east part of Minnesota, formed by huge deposits of drifts overlying a local outcrop of the primary and metamorphic rocks, which terminates the Superior basin on the west, forms the "heights of land" between the waters which flow respectively into the Gulf of Mexico on the south, the Atlantic Ocean on the east, and Hudson's Bay on the north. The heights of land rise by scarcely perceptible slopes from the general level, in no instance higher than 1,680 feet above the level of the sea, which is not more than 600 feet above the average elevation of the country. These hills are commonly flat at the top, varying in height from eighty-five to one hundred feet above the surrounding waters. The principal group of these drift-hills is subdivided into several ramifications. A prominent span extends in a southerly direction from the Itasca crest of the Mississippi for perhaps one hundred and fifty miles, known as the Leaf Mountains, and the Coteau du Grand Bois of Nicollet, and forms a low dividing ridge between the waters of the Mississippi and Red Rivers. The crest of the dividing ridge between Lake Superior and the Mississippi is not more than 1,400 feet high; and the highest of the trap summits north of the lake is but 1,475 feet. Lake Superior is 641 feet above the sea. With this exception, the surface of the country is generally an undulating plain, with an average elevation of nearly one thousand feet above the sea, and presents a succession of small rolling prairies or table-lands, studded with lakes and groves, and alternately with belts of timber. Two-thirds of the surface slopes south-east with the waters of the Mississippi, the northern part of the State being nearly equally divided between the alluvial levels of the Red River Valley on the north-west and the broken highlands in the north-east, which are mainly divided by the precipitous streams which flow into Lake Superior and the Rainy Lake chain.

GEOLOGY.—Notwithstanding the large area of Minnesota, the rock formations it contains, so far as they have been explored, appear to be limited almost exclusively to the azoic and lower protozoic groups; and over the greater part of the State these are concealed beneath the diluvial deposits which make the superficial covering of these boundless prairies. The north-west coast of Lake Superior is made up of metaphoric lake and sandstone, intermingled with grits of volcanic origin, and other bedded traps and porphyries. These are intersected by frequent dykes of greenstone and basalt, and among them are occasional deposits of red clay, marl, and drift. Behind this group are traced westward, and along the northern boundary of the State, formations of hornblende and argillaceous slates, succeeded by granite and other metaphoric rocks. These groups extend south-west into the central portions of the State. Along the southern boundary the division formation is found in the extreme west; the Niagara limestone succeeds this toward the east; the next occurs the galena limestone, and then the Trenton limestone and the upper or St. Peter's sandstone, which overlies the Potsdam sandstone. These sandstones crop out up the valley of the Mississippi nearly as far as Fort Snelling, when the lower silurian limestones—which, on both sides of the river, lie behind and over the sandstone—meet in the valley and form the bluffs of the rivers. They are traced up the Minnesota River, curving round and almost reaching the southern boundary of the State again, and cutting off the continuation of the higher groups further northward. Thus, throughout the State, there appears to be no room for the carboniferous group, so that no coal may be looked for. The lead-bearing rocks traced from the Iowa line are of little extent, and probably of little importance.

CLIMATE.—The winters in Minnesota are cold, but generally clear and dry, and the fall of snow is usually light. The summers are warm, with breezy nights, during which occur most of the rains. The general purity of the air and the salubrity of its climate recommend it for the residence of invalids. At the Pembina settlement, under the 49th parallel of latitude, the cold is frequently so great as to freeze quicksilver. According to observations kept by the officers stationed there in January, 1847, the mean temperature of the month, from three observations a day, at 9 A. M. and 3 and 9 P. M., was $12\frac{1}{2}^{\circ}$ below zero; and the greatest cold 48° below the same point. The average of sixty-six days' observations was $22\frac{1}{4}^{\circ}$ below zero; and the highest point reached in the month of January, 30° above zero. The hottest day in the month of July was 96° , showing a range of 144° between the greatest cold and greatest heat. From the 17th of June to the 17th of July, 1848, the mean temperature was 69° . Even as late as in the latter weeks of March, and as early as in November, the thermometer often falls below zero. Observations made at St. Paul's, in latitude $44^{\circ} 56'$ north, in December, January, and February, of the winter of 1850-'51, gave the following results: Clear days, 22; variable, 45; cloudy, 23; rain, 5; snow, 24; and hail, 1. Greatest height of the mercury, 47° ; lowest point, $32^{\circ} 5'$ below zero; average of the winter,

15° 23'. Thirty-one days the mercury was at or above freezing, and thirty-seven days below zero. The coldest day, (January 30,) it was 20° below; and the mildest, (February 25,) 36° 6' above zero. Winds, north-north-west, 50 days; south-east to east-north-east 20 days; variable, 20 days. The amount of rainy days this winter is stated as unusually large, from which the dryness of the atmosphere may be inferred. The earliest closing of the navigation by ice, between 1844 and 1850, was November 8; the latest, December 8. The earliest opening in the same period was March 31; the latest, April 19. The climate of Minnesota, in some parts, is too severe for Indian corn, but the dryness and steadiness of the cold favor wheat and other winter grains.

LAKES AND RIVERS.—Minnesota is, perhaps, even more deserving than Michigan of the appellation of the "Lake State," as it abounds in lacustrine waters of every size, from lakes of forty miles in extent to small ponds of less than a mile in circuit. These beautiful sheets of water give origin to rivers flowing north, south, and east, some finding their way to the Atlantic through the mighty Mississippi and the Gulf of Mexico; others through the great lakes, Niagara, and the St. Lawrence; and others, again, pass off to the north, and seek the ocean through Hudson's Bay and Straits. The largest of these lakes, with the exception of Lake Superior, are the Lake of the Woods, Rainy Lake, Red, Leech, and Mille Lac, or Spirit Lake. These generally have clear, pebbly bottoms, and are well stocked with fish, among which are whitefish, pike, pickerel, maskelonge, sucker, perch, and trout. Wild rice grows on the borders of many of them, especially at the north. Red Lake, on the 48th parallel, east of Red River, with which it communicates, is divided into two portions, united by a strait of two miles in width, and covers about 600 square miles. Lake of the Woods and Rainy Lake (the former a larger sheet of water, perhaps 100 miles in circuit,) are both on the north-east boundary of the State. Lake Pepin, a beautiful sheet of water, is a mere expansion of the Mississippi in the south-east of this State. The rivers and large streams of Minnesota are almost as numerous as its lakes. The far-famed Mississippi takes its humble origin from Itasca Lake, from whose pellucid waters it issues a rivulet of but a few feet in width, and first meandering in a north-east direction through a number of small lakes, to receive their tribute, it turns to the south, and pursues its lordly way to its far distant exit in the Gulf of Mexico, leaving in its course the shores of nine States. About 800 miles of its length are included within Minnesota, of which 600 are navigable for steamboats, 200 below the Falls of St. Anthony, and 400 above, with two interruptions, however, at Sauk Rapids and Little Falls. The Rum and St. Croix, tributaries of the Mississippi, drain the south-east portion of the State, and the Red River the northern, passing off into Hudson's Bay. It is the outlet of Traverse, Otter-tail, Red, and several smaller lakes. It has a course of about 500 miles within Minnesota, though it does not flow directly north more than 200 miles in that distance. The Lake Superior slope is principally drained by the St. Louis and its branches, and by the outlets of that series of small lakes that form the north-east boundary of Minnesota. The great

valley formed by the slopes of Coteau des Prairies and the Coteau du Bois, is drained by the St. Peter's, or Minnesota, and its tributaries. This river runs first in a south-east and then in a north-east course, with a total length of from 400 to 500 miles, and is navigable for steamers. Its principal branch is the Blue Earth or Mankato River. The St. Peter's, with the Crow Wing and Crow Rivers, are the principal tributaries of the Mississippi from the west. The rivers of Minnesota abound in small falls and rapids, which, while they interrupt navigation, furnish extensive water-power. The St. Croix is navigable to Stillwater for large boats, and for small ones to the falls; the Minnesota to Traverse des Sioux, and at high water 100 miles further; the St. Louis twenty miles for large vessels, and the Red River in nearly all parts for either Durham boats or steamboats. The Blue Earth, Rum, Elk, and others are navigable from 50 to 100 miles for steamboats of light draught and flat boats.

The navigable waters within the State have a total shore line of 2,746 miles, and a water line of 1,532 miles. Along the banks of the Mississippi and of some other rivers are high bluffs, forming one of the most interesting and characteristic features of the scenery.

OBJECTS OF INTEREST.—Many natural objects of interest are found throughout Minnesota. The traveler enters her territory ascending the Mississippi, amid beautiful islands, (one of which, Mountain Island, is 428 feet high,) and between cliffs of sandstone and magnesian limestone rising to an elevation of three hundred to five hundred feet. Soon he passes into that beautiful expansion of the river called Lake Pepin, on the east branch of which rises Maiden's Rock, celebrated in Indian tradition, about four hundred feet high; and near the northern extremity of the lake, La Grange Mountain, a headland about 330 feet above the lake, 180 of which, at the base, is sandstone, capped with magnesian limestone. As he proceeds, continuing his ascending voyage, the traveler arrives at the famed St. Anthony's Falls, less celebrated on account of their perpendicular pitch (only 16½ feet) than for their accompaniments of wild scenery and their geological interest. The falls are divided by an island, as at Niagara, the greater portion of the water passing on the western side, which is 310 yards wide. The entire descent, including the rapids, is 58 feet in 260 rods. St. Anthony's Falls will no doubt one day become a Western Lowell; indeed, its capabilities as a manufacturing site far transcend those of the town named, when the wants of the country shall call them into requisition. Fountain Cave, two or three miles above St. Paul, is an excavation in the white sandstone, which opens by an arched entrance 25 feet wide and 20 high, into a chamber 150 feet long and 20 wide, along the center of which glides a rivulet, which may be heard from its inner and hidden recesses dashing down in small cascades. The passage becomes very narrow as you proceed up the channel, occasionally opening into small chambers. Mr. Seymour advanced nearly 1,000 feet within the cave without reaching its termination. Brown's Falls are in a narrow stream, the outlet of several small lakes on the west side of the Mississippi. They have a perpendicular descent of 50 feet, and including

smaller falls and rapids, 100 feet. Pilot Knob, near the confluence of the Mississippi and St. Peter's, is an elevation of 262 feet, which commands a fine view of the surrounding country and the two rivers near whose junction it stands. The St. Croix Falls, or Rapids, about 30 miles from its mouth, have a descent of nearly 50 feet in 300 yards; but the most interesting portion of the scene consists in the perpendicular walls of trap-rock through which the river has forced its way, about half a mile below the rapids, and through which it rushes with great velocity, forming eddies and whirlpools. At this place, 40 or 50 feet above the river, port-holes, 20 to 25 feet in diameter, and 15 to 20 deep, have been worn by the action of the water. This pass is called the Dalles of the St. Croix. The Sioux River "breaks through a remarkable formation of massive quartz, which crosses it perpendicularly," at the Great Bend, in about $43^{\circ} 30'$ north latitude, and forms a series of falls and rapids, one of which is 21 feet, another 18, and a third 10 feet in perpendicular pitch. The entire descent in 400 yards is 100 feet. Minnesota shares with Wisconsin in the falls and rapids of the St. Louis River, another picturesque and romantic display of nature's works. The rivers of Minnesota are filled with picturesque rapids and small falls, and often bordered with perpendicular bluffs of lime and sandstone, or gently sloping hills that gracefully recede from the water. This region is the paradise of a hunter: its prairies and forests are the home of many wild animals, and in its rivers and lakes swim great varieties of fish.

A few miles beyond St. Anthony's Falls, between Minneapolis and Fort Snelling, are the Minnehaha Falls, a romantic and beautiful cascade with a perpendicular pitch of 45 feet, flowing over a projecting rock, which permits a passage underneath.

FOREST TREES.—Parts of Minnesota are densely timbered with pine forests, and the ridges of the drift districts with small pine, birch, aspen, maple, ash, elm, hemlock, fir, poplar, and basswood. In the swamps between the ridges the tamarack, cedar, and cypress are found; while the river bottoms furnish a good growth of oak, aspen, soft maple, basswood, ash, birch, white walnut, linden, and elm. Much of this timber on the poorer ridges, and in some of the marshes, is of rather a dwarf character. On the Bum, St. Croix, and Pine Rivers, there are extensive forests of pine. According to Professor Owen, "a belt of forest crosses Minnesota in latitude $44^{\circ} 30'$, which is remarkable for its unusual body of timber, in a country otherwise but scantily timbered." Bond says "there are 80 miles of solid pine timber on the shores of the Mississippi, below Pokegamin Falls." Taken as a *whole*, Minnesota can scarcely be called a well-wooded country. But here, as in other parts of the West, when the prairies are protected from fire, a growth of young timber soon springs up.

ANIMALS.—Minnesota has always been a favorite hunting-ground of the Indians, and vast herds of buffalo, elk, deer, antelope, and other game still roam over the plains west of the Coteau des Prairies and the Red River. Deer, black bear, antelope, wolverine, otter, muskrat, mink, martin, wolf, and raccoon abound, and the moose and grizzly bear are

occasionally met with. The prairies are frequented by grouse, pheasants, and partridges, and the streams by wild ducks and geese. The other birds are hawks, buzzards, harriers, owls, quails, plovers, larks, and a great variety of small birds. Among the water-fowl are the pelican, tern, hooded sheldrake, bustard, broadbill, ruffle-headed duck, wood duck, teal, wild goose, and loon. Both the golden and bald eagles are occasionally met with. The rivers and lakes abound in fine fish, among which are the bass, carp, sunfish, pickerel, pike, catfish, whitefish, sucker, maskelonge, and trout.

SOIL AND PRODUCTIONS.—The soil of Minnesota varies greatly. In the valleys of the rivers it is mostly excellent, especially in those of the St. Peter's, and of the Mississippi and its tributaries in the south-east part of the State. Above the Falls of St. Anthony, with the exception of the river alluvions and some prairie land, the country is generally covered with drift, interspersed with marshes, too wet for cultivation; but the elevated portion is often much of it of tolerable fertility, though inferior to the calcareous lands of the river-bottoms, and not unfrequently covered with dwarf timber. Professor Owen remarks that "the general agricultural character of the Red River country is excellent. The principal drawbacks are occasional protracted droughts during the midsummer months, and during the spring freshets, which from time to time overflow large tracts of low prairie, especially near the Great Bend." According to Governor Ramsay, wherever the test has been made, Minnesota produces corn, wheat, oats, and potatoes equal in *quality* to that produced in any State in the Union, and in quantity such as to astonish those who have been familiar even with the rich bottom-lands of Indiana and Illinois. The nutritious wild rice, strawberries, currants, plums, cranberries, grapes, and crab-apples are indigenous.

According to the national census of 1850, there were only 5,035 acres of land under cultivation; but the census of 1860 increased this number to 554,297. The latter census showed an annual product of 2,195,812 bushels of wheat, 124,259 of rye, 2,987,570 of Indian corn, 2,202,050 of oats, 18,802 of peas and beans, 2,027,945 of Irish potatoes, 781 of sweet potatoes, 125,130 of barley, 27,677 of buckwheat, 274,952 tons of hay, 22,740 pounds of wool, 2,961,591 of butter, 99 of maple sugar, 34,923 of beeswax and honey, 14,974 gallons of sorghum molasses, and 21,829 of maple molasses. The yield of wheat in Minnesota in 1865 was ten million bushels, at an average of 25 bushels per acre. It is estimated that 700,000 bushels of this crop were exported at remunerative prices. The value of live stock in 1860 was \$3,655,366; of home-made manufactures, \$8,057; and of animals slaughtered, \$732,418.

MANUFACTURES.—According to the census of 1860, there were then in Minnesota 565 manufacturing establishments, in which a capital of \$2,400,000 was invested, and which employed 2,230 hands—2,215 males and 15 females. The quantity of raw material consumed was valued at \$2,060,000 and the value of the annual products was estimated at \$3,600,000. By the census of 1850, Minnesota had five manufacturing establishments, with a capital of \$94,000, employing 63 males and no

female hands, consuming yearly \$24,300 worth of raw material, and manufacturing products valued at \$58,300.

COMMERCE.—A large trade is carried on by steamers on the Mississippi, and a regular communication maintained with the East *via* Milwaukee and Chicago, and with the Gulf States by way of St. Louis, etc. The arrivals of steamboats at St. Paul, in 1844, were 41; 1845, 48; 1846, 24; 1847, 47; and in 1848, 63. To this period the sole occupation of these was in the fur and Indian trade. In 1849, and subsequent years, the arrivals were as follows:

YEARS.	No. of arrivals at St. Paul.	River closed by ice.	Length of season.
1849,	95,	December 7,	242 days.
1850,	194,	December 4,	289 days.
1851,	119,	November 8,	288 days.
1852,	171,	November 18,	216 days.
1853,	200,	November 30,	233 days.
1854,	256,	November 27,	223 days.
1855,	560,	November 20,	217 days.
1856,	857,	November 10,	212 days.
1857,	1,026,	November 14,	198 days.
1858,	1,068,	November 15,	236 days.
1859,	808,	November 27,	222 days.

In this table are included arrivals from ports within as well as without the State. The principal points of connection in the river trade without the State are La Crosse, Prairie du Chien, Dunleith, and St. Louis, from which came five-eighths of the arrivals in 1859; the remainder came chiefly from the Minnesota River, on which a smaller class of boats were employed. About 1860 an important trade sprang up between St. Paul and the Selkirk settlement on the Red River of the North, then a community of ten thousand persons, consisting of farmers, hunters, and traders, connected with the Hudson Bay Company. Until 1859 this trade, which was constantly increasing, was carried on by means of carts overland, of which four hundred to five hundred arrived annually at St. Paul. In that year, however, a small steamboat was placed on the Red River, and with the improved means of conveyance the Hudson Bay Company chose that route for the transportation of their annual supplies, in preference to the old canoe route to Hudson's Bay.

In 1859 there were engaged in the commerce of Lake Superior nine steamers and twenty sailing vessels, with a total burden of 16,200 tons. The chief commercial products of the country are wheat and oats, in the yield and quality of which Minnesota excels most other States; corn, of which it is less productive; potatoes, turnips, and other field roots; dairy products, wool, cattle, hides, furs from the north-west, pine lumber and cranberries from the north-east, and ginseng from the central forests.

EDUCATION.—Ample provision has been made for public education in Minnesota. There is a grant by Congress of two sections of every township of land, or 2,888,000 acres in all, and a tax of one-fourth of one per cent. on all taxable property, amounting in 1854 to \$89,000, for

the support of common schools; a grant of 72 sections of land for a State University, and a State appropriation of \$15,000 in aid of three State normal schools. In 1859 the number of persons of school age was 42,258, and of school districts, 1,016. There are union or high schools wherever the population is sufficiently compact. In 1859 a law was passed for the establishment of a deaf and dumb asylum at Faribault, and in 1858 for a State agricultural college at Glencove. The State common school fund amounted, at the beginning of the year 1867, to about \$1,500,000. At the same time, there were 52,752 pupils in attendance at the public schools.

COUNTIES.—The following is a list of the counties in Minnesota, with their county towns where known, and the population of each county, according to the census returns of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Aiken,		2	Meeker,	Forest City,	928
Anoka,	Anoka,	2,106	Mille Lac,	Princeton,	78
Becker,		386	Monongalia,		350
Benton,	Sauk Rapids,	627	Morrison,	Little Falls,	618
Blue Earth,	Mankato,	4,803	Mower,	Austin,	3,217
Breckinridge,		79	Murray,		29
Brown,	New Ulm,	2,339	Nicollet,	St. Peter,	3,773
Buchanan,		26	Noble,		35
Carlton,		51	Olmsted,	Rochester,	9,524
Carver,	Chaska,	5,106	Otter Tail,		240
Cass,	Chippewa,	150	Pembina,		1,612
Chisago,	Chisago Lake,	1,743	Pierce,		11
Cottonwood,		12	Pine,	Cheneywatana,	92
Crow Wing,	Crow Wing,	269	Pipestone,		23
Dakota,	Hastings,	9,098	Polk,		240
Dodge,	Mantorville,	3,797	Ramsey,	St. Paul,	12,150
Douglas,		195	Redwood,	Redwood Falls,	
Faribault,	Blue Earth City	1,385	Renville,	Sioux Agency,	245
Fillmore,	Preston,	13,542	Rice,	Faribault,	7,543
Freeborn,	Albert Lee,	3,367	St. Louis,	Du Luth,	406
Goodhue,	Red Wing,	8,977	Scott,	Shakopee,	4,595
Hennepin,	Minneapolis,	12,849	Sherburne,	Big Lake,	723
Houston,	Caledonia,	6,645	Sibley,	Henderson,	3,609
Isanti,	Cambridge	284	Stearns,	St. Cloud,	4,505
Itasca,		51	Steele,	Owatonna,	2,863
Jackson,		181	Todd,		430
Kennebec,	Brunswick,	30	Toombs,		40
Kandiyohi,	Kandiyohi,	76	Wabasha,	Wabasha,	7,228
Lake,		248	Waseca,	Wilton,	2,601
Le Sueur,	Le Sueur City,	5,318	Washington,	Stillwater,	6,123
McLeod,	Glencoe,	1,286	Watsonwan,	Madelia,	
Manomin,	Manomin,	136	Winona,	Winona,	9,208
Martin,	Fairmont,	151	Wright,	Monticello,	3,729

POPULATION.—The census of 1860 gave the total population of Minnesota as 172,123, of whom 169,495 were white persons—91,804 males and 77,691 females; 259 were colored persons—126 males and 133 females, and 2,369 were Indians—1,254 males and 1,115 females.

The population in 1850 was 6,077. The ratio of increase for the ten years preceding 1860 was about 2,745.19 per cent. The total vote of the State at the Presidential election in 1860 was 34,799, and in 1864, 42,435. The total vote for members of Congress in 1866 was 41,758. The total population of the State at the beginning of the year 1867 was set down in the message of Governor Marshall to the Legislature at 340,000, being double the aggregate population in 1860.

PRINCIPAL CITIES AND TOWNS.—The principal cities and towns of Minnesota are St. Paul, the capital, St. Anthony, Minneapolis, Stillwater, Winona, Red Wing, Hastings, Wabasha, Lake City, Anoka, St. Cloud, Shakopee, St. Peter, Mankato, Faribault, Rochester, and Chatfield.

St. Paul, the capital of the State, and the county town of Ramsey County, is situated on the left bank of the Mississippi River, 2,082 miles from its mouth, and nine miles below the Falls of St. Anthony, and in latitude 44° 52' 46" north, and longitude 93° 5' west. Its population in 1850 was 1,112; in 1860 it had increased to 10,277. The city lies on a plain about eighty feet above the river, eight hundred feet higher than the Gulf of Mexico, and partly encircled by low hills, abounding in excellent water from numerous springs. The Mississippi is navigable to this point for large steamers. St. Paul is a city of active trade and general business. The State-house is a handsome structure, 150 feet long by 53 wide, surmounted by a handsome dome.

St. Anthony is also in Ramsey County. It is situated on the east of the Mississippi River, and north-west of St. Paul, eight miles distant by land. It contained, in 1866, 3,258 inhabitants. It is the head of navigation on the Mississippi, and has an unlimited water-power in the falls from which it takes its name. Within its limits are a State University, and several saw-mills and manufacturing establishments. Adjoining it on the south is the village of St. Anthony City. Minneapolis, containing in 1860 a population of 2,564, is on the opposite side of the river.

GOVERNMENT.—The qualifications of voters in Minnesota are, that they be free white males, twenty-one years of age, who are or have declared their intention of becoming citizens of the United States, and who have resided in the United States one year, and in the State four months next preceding the election. Indians, and persons of mixed white and Indian blood, who have adopted the language, customs, and habits of civilization, are also allowed to vote in any district in which they have resided for ten days next preceding the election.

The Legislature consists of thirty-seven senators, elected for two years, and eighty representatives, elected for one year. They must be qualified voters and residents in the State one year, and in their respective districts six months next before the election.

The Executive consists of a Governor, Lieutenant-Governor—who is President of the Senate—Secretary of State, Treasurer, and an Attorney-General, all elected for two years, and an Auditor elected for three years.

The Judiciary consists of a Chief-Justice and two associates, forming the Supreme Court, six Judges of District Courts and a Judge of Pro-

bate, and Justice of the Peace in each county. All Judges are elected—those of the Supreme and District Courts for seven years, and the others for two years.

HISTORY.—Though of comparatively recent settlement, Minnesota has long been the seat of considerable traffic with the Indians, and of missionary enterprise. As early as 1680 Hennepin and La Salle penetrated these wilds, followed by La Hontau and Le Sueur, and in the last century by Carver. This region has been, within the present century, thoroughly explored by Pike, Long, Keating, Nicollet, Schoolcraft, Owen, and others. It was not, however, until 1812 that the United States had any authority within the limits of Minnesota. A law was passed in 1816 excluding foreigners from the Indian trade, and the military post of Fort Snelling was established in 1819. In 1837 a small tract of country between the St. Croix and Mississippi was ceded by the Indians to the United States, and lumbering operations commenced upon the St. Croix. The Territory of Minnesota was organized by act of Congress of March 3, 1849, and the government of the same was organized in June following. It embraced nearly twice the area of the present State, its western limits extending to the Missouri and White Earth Rivers. Up to this period the country was occupied almost entirely by Indians; but a small civilized population of whites and half-breeds had grown up around the trading-posts and mission stations, amounting in 1849 to 4,857 persons.

In 1851 the Sioux ceded to the United States all the lands in the territory west of the Mississippi to the Big Sioux River. The population increased so rapidly after this that in 1857 application was made for the admission of Minnesota as a State of the Union. By act of Congress of February 28, 1857, the people of the Territory were authorized to form a Constitution and State Government, and Minnesota became, on the 11th of May, 1858, the thirty-second State of the American Union. That portion of the State lying on the east side of the Mississippi originally belonged to the country termed the "Territory north-west of the Ohio," and, had the ordinance of 1787 been fully complied with, would have been included in the fifth State (Wisconsin) formed from that region. This section comprises an area of 22,336 square miles. The part of the State lying west of the Mississippi River, and embracing more than two-thirds of its area, was originally a portion of Louisiana, and came into the possession of the United States in 1803. Previous to its inclusion in the Territory of Minnesota, it had been a part of the Territory of Missouri, and subsequently of Iowa.

THE INDIAN MASSACRE.—The following account of the atrocious Indian massacre in Minnesota in the year 1862, and of the war that followed, is extracted from Appleton's Annual Cyclopædia for that year:

"During the spring and early summer of 1862 reports from various sources reached the United States Government, indicating that the Indian tribes of Utah, Colorado, Dakota, and Western Nebraska would ravage the Territories and frontier States. It was said that emissaries from the Southern Confederacy had been among them, stimulating them

to rise and plunder and destroy the frontier settlements; and to encourage them in this movement, they were told that the United States Government was broken up by the South, and could make no resistance. Adventurers from Canada, too, had visited them in the early part of the year, (when, in consequence of the Mason and Slidell affair, it was expected there would be war with Great Britain,) urging them to bring their furs across the boundary, and assuring them that they should be aided with money and arms to drive the Americans from their lands. The Indians, while thus prompted to insurrection by evil and designing men from both north and south of their hunting fields, had also many imaginary and some real grounds of complaint against the Indian Agents sent among them by the United States Government. Some of these had proved unworthy of their trust; had swindled and defrauded the Indians, and had treated them with harshness. And though there were exceptions, and perhaps rare exceptions, yet the delay in paying the Indian annuities—owing to the negligence of the Indian Bureau, and the attempt on the part of some of the agents to pay them in legal-tender notes instead of gold, which the Government had furnished—aroused distrust in the minds of the red men, and led them to plot revenge.

"The reports which reached the Department of the Interior had given rise to so much apprehension, that the Commissioner of Indian Affairs published in the summer an advertisement warning the public of the danger in taking the overland route to the Pacific.

"Meantime the settlers in western Minnesota were entirely unsuspecting of danger. A large proportion of these settlers were Germans, especially in Brown and the adjacent counties; a considerable number were Norwegians, and the remainder generally of American birth. Most of them had purchased considerable farms, and they had built up small but thriving villages through the entire western counties. They were on terms of friendship with the Indians, and had no apprehension of any treachery from them.

"Though an insurrection had been deliberately planned, there is reason to believe that the massacre was precipitated somewhat sooner than was at first intended. On the 17th of August, four drunken Indians, belonging to Little Crow's band of Sioux, roaming through the country and becoming intoxicated on whisky obtained from a white man, had a violent altercation with each other as to which of them was the bravest, and finally determined that the test of their bravery should be the killing of a white man. After committing several murders, and becoming somewhat sober, they fled to their village (Red Wood) and told their chief, Little Crow, who was one of the conspirators, what they had done. He, expecting retaliation for this outrage, at once determined upon commencing the attack, and on the morning of the 18th, with a force of 250 or 300 Indians, proceeded to the agency of Yellow Medicine and engaged in an indiscriminate slaughter of all the whites he could find there. Mr. Galbraith, the agent, was absent, having left home three days before, but his family were among the victims of this murderous assault. A force of forty-five soldiers sent up from Fort

Ridgley at the first rumor of disturbance, were attacked by the Indians, in ambush, and half their number slain. The marauders, flushed with success, passed on with their work of death, murdering, with the most atrocious brutalities, the settlers in their isolated farm-houses, violating and then killing women, beating out the brains of infants or nailing them to the doors of houses, and practicing every species of atrocity which their fiendish natures prompted. On the 21st of August they had attacked New Ulm, a flourishing German settlement, the capital of Brown County, with a large force, had beleaguered Fort Ridgley, and were advancing upon other settlements.

"The only Indians engaged in these outrages were Sioux, and that portion of them under the special command of Little Crow. The Chippewas, the inveterate enemies of the Sioux, who had also a reservation in Minnesota, were uneasy, and assumed a threatening attitude. They alleged gross frauds on the part of their agent, who escaped from the reservation and committed suicide; but they took no part in the Sioux massacres, and, indeed, a few weeks later, offered to raise a force of their warriors to fight the Sioux, an offer which the Government did not think it wise to accept. On the first intelligence of this insurrection, Governor Ramsey sent four companies of the sixth regiment of volunteers from Fort Snelling, and, two days later, on fuller information, he sent forward seven companies more. Colonel (now General) H. H. Sibley, who had thirty years' experience among the Indians on the frontier, was placed in command. Mounted volunteers were also called for by proclamation to join the forces, and large numbers obeyed the call. The Third Minnesota regiment, then on parole at St. Louis, was also ordered to report at St. Paul, and arrived there on the 4th of September.

"On the 23d of August New Ulm was attacked by the Indians, who were repulsed, after a severe battle, by a body of the citizens under Judge Flandran, but remained in the vicinity, intending to renew the assault. The next day a detachment of Col. Sibley's troops relieved them from siege, and scattered the marauders; but as 2,000 women and children, who had fled in terror from the surrounding region, had taken refuge there, it was deemed best to evacuate the place, in order to convey them to a place of permanent safety. Fort Ridgley had been besieged for nine days, and its little garrison had sustained and repelled three desperate attacks; they were relieved on the 26th by a force under the command of Lieutenant-Colonel McPhail, sent forward by Col. Sibley. Finding a large force concentrating on their trail in this direction, the greater part of the Indians proceeded northward, burning and killing every thing in their way, toward Breckinridge, a town at the junction of the Bois des Sioux and Red River of the North, which at that point formed the west boundary of the State, massacred the settlers there, and crossing the river, laid siege to Fort Abercrombie, in Dakota Territory. Intelligence of these movements having reached St. Paul on the 27th, two companies were forwarded at once to reinforce Fort Abercrombie. On the 3d of September a force of 150 Indians unexpectedly appeared at Cedar City, in McLeod County, in the center

of the State, attacked a company of volunteers there, and drove them to Hutchinson, while another band, about as numerous, attacked Forest City, not far distant, and were repulsed by the citizens. A few days later the Indians attacked Hutchinson, but were repulsed. Troops were sent at once to these points. Driven back here, the savages next extended their raid to Jackson, Noble, and Pipeston Counties, in the south-west part of the State, on the border of Iowa, and Col. Flandran, who had so valiantly defended New Ulm, was sent with 500 troops to protect that region.

"Governor Ramsey had meantime apprised the United States Government of the condition of affairs, and had called the Legislature of Minnesota together to meet in extra session on the 9th of September. At their assembling, he laid before them, in his message, the circumstances of the Indian insurrection, and suggested the measures requiring their action, all of which were promptly passed. Meantime the Government had dispatched Major-General Pope to command in that department, and aid in suppressing the insurrection. The Indians, finding a force greatly superior to their own ready to take vengeance on them for the terrible and dastardly outrages they had committed, began to withdraw from the region they had desolated. A force of 300 or 400 of them made two assaults, in September, on Fort Abercrombie, but were repulsed in both, the second time with heavy loss; the larger part of those who had invaded the central and south-western part of the State, fled toward the western border, but were overtaken and brought to bay at Wood Lake, on the 22d of September, where, after a short battle, they were utterly defeated, and Little Crow, with his women and children, fled to the Yankton Sioux of Dakota Territory. About 500 Indians were taken prisoners, and 498 were tried by court-martial, of whom 300 were sentenced to be hung. The President ordered, however, that only thirty-eight of these should be executed, while the remainder were kept in confinement until further investigation could be had. One of the thirty-eight executed on the 26th of December was a negro named Godfrey, who had been a leader in the massacre, and it was said had killed more than any one of the Indians.

"The whole number of Indian warriors among the Minnesota Sioux did not exceed 1,000 or 1,200, and many of these had taken no part in the insurrection, so that probably the killed and captured constituted the greater part of the insurgents. This defeat and prompt arrest of the assailants carried terror into the hearts of other Indian tribes in the vicinity, and though there have been occasional symptoms of uneasiness since that time among some of the Indians of that region, and the inhabitants of Minnesota can not feel safe with such treacherous and blood-thirsty foes so near them, it is hardly probable that there will be another uprising for some years. The citizens of Minnesota are, not without cause, exceedingly desirous the Government should remove the Indians from their State.

"The loss of life in this insurrection has never been accurately ascertained. Gov. Ramsey, in his message, stated it in round numbers at eight hundred, a number undoubtedly larger than subsequent facts

would sustain. Some of the writers from the region in which it occurred speak of it as not exceeding one hundred, which is probably as great an error in the other direction. Eighty-five were buried at Yellow Medicine, nearly all of whom were horribly mutilated, and a considerable number at New Ulm, Breckinridge, Birch Coolie, Fort Abercrombie, Red Lake, Red Wood, and Wood Lake, and many more in the isolated farm-houses in the extensive tract overrun by the savages. Probably not far from five hundred, in all, lost their lives, either through the ferocity of the Indians, or from the sickness, suffering, and starvation which resulted from their hasty flight from their homes. Between 20,000 and 30,000 persons thus fled for their lives, leaving every thing behind them. A part have since returned, others have found their way to their friends at the East, but for some months between 6,000 and 7,000, mostly women and children, were necessarily dependent upon charity.

"The people of the State contributed most liberally toward their relief, and considerable sums were forwarded from other States. Governor Ramsey urged upon the Government the forfeiture of the annuities of the Sioux for the benefit of the innocent sufferers, and the Secretary of the Interior warmly seconded the proposition, which, indeed, seems no more than justice. The loss of property was estimated at from \$2,500,000 to \$3,000,000, and the capital of annuity paid to the Minnesota Sioux was \$2,000,000."

FINANCES.—The receipts into the State treasury of Minnesota for the year ending December 1, 1865, were \$489,129.46, and the disbursements during the same period amounted to \$416,318.60, leaving a balance of \$72,801.86 on hand. At the close of the year, the floating debt, for the first time in the history of the State, was announced to be substantially canceled. The land-offices in the State disposed, during 1865, of 804,982 acres, and the railroad companies of about 200,000. Of school lands, 150,048 acres were sold, at an average price of about \$6.30 per acre, realizing \$983,528. If the remainder of these lands should be sold at the same price, the school fund will amount to \$16,000,000. The land registry showed entries during the year of 139,323 acres.

The Governor's message to the Legislature at the opening of the session in January, 1867, stated that the State finances were in a satisfactory condition; that the total receipts for the past fiscal year were \$529,455; the claim of the State against the General Government (\$125,000) was in a fair way for speedy settlement; and the funded debt of the State was \$625,000 of eight per cent., and \$100,000,000 of seven per cent. bonds, of which \$90,000 was held by the school and sinking funds.

RAILROADS.—The railroad interests of Minnesota are witnessing a great development. During 1865 upward of 210 miles of track were completed and 132 graded. Of the railroad communications with the Eastern and Western States, Governor Miller, in his message to the Legislature of 1866, on the occasion of his retirement from office thus spoke:

"The Chicago and North-western Company have given assurances that their road shall be completed to Winona at an early day; thus, by means of the St. Paul and Pacific and Winona and St. Peter's lines, a continuous railroad communication will be formed from almost every populous district of the State to Chicago and other Eastern markets. The city of St. Louis will be reached by the Minnesota Central Railroad and its connections, while our wealthy tier of counties bordering on the Iowa line, will be equally well cared for by the completion of the Southern Minnesota Road."

GEOLOGICAL EXPLORATION.—Professor Eames, the State Geologist for Minnesota, returned in the latter part of 1865 from an exploring expedition in the region around Vermillion Lake, situated in the north-east corner of the State, about 80 miles north of Lake Superior and 22½ from St. Paul. He reported in the vicinity of Vermillion Lake, and throughout nearly the entire country between this lake and Lake Superior, extensive formations of gold and silver-bearing quartz, and immense bodies of iron ore of a superior quality. The field accurately examined in the vicinity of Lake Vermillion showed a formation of talcose and silicious slate, which the ore-bearing quartz veins traverse, upward of six miles in width and ten in length. All the indications tended to show that the mineral range is very extensive. Both the talcose and silicious slates are very rich in veins of gold and silver. Within the distance of half a mile eight veins were examined, varying from one inch to ten feet in width, and all of them auriferous or silver-bearing. Some of the veins were traced to the distance of seven miles. Numerous specimens of this quartz have been assayed at the United States mint and elsewhere, and, though they were taken from the surface, have yielded thirty dollars of gold and silver to the ton.

An immense iron range was also discovered in the same vicinity, its first exposure being about two miles long and three-quarters of a mile wide, extending north-east. It was examined to the thickness of fifty feet, and supposed to extend much below this depth.

FUR TRADE.—The fur trade of Minnesota forms an important item of industry, and employs several thousand persons, white men and Indians. The value of the furs obtained in 1865 was between \$4,000,000 and \$5,000,000, somewhat less than the yield of previous years. The chief kinds taken are mink, muskrat, otter, and beaver skins.

OREGON.

OREGON, the twentieth State admitted into the Union after the adoption of the Federal Constitution, is bounded on the north by Washington Territory, on the east by the Territory of Idaho, on the south by Nevada and California, and on the west by the Pacific Ocean. In other words, its northern boundary is the Columbia River, separating it from Washington Territory, for a distance of about 300 miles from its mouth to its intersection with latitude 46° north, which it follows eastward about 70 miles to the Snake River, or Lewis fork of the Columbia, and that stream is the boundary to the mouth of the Owyhee River; the line continues thence due south to latitude 42° , and thence due west to the ocean. Oregon lies between latitude 42° and 46° north, and longitude $116^{\circ} 40'$ and $124^{\circ} 25'$ west. It is about 320 miles long from east to west, and 280 miles wide from north to south. Its area is about 80,000 square miles.

FACE OF THE COUNTRY, MOUNTAINS, ETC.—Oregon is usually divided into three portions, viz.: the lower country, or portion next the ocean; the middle country, or that part which lies between the Cascade range and the Blue Mountains; and the upper country, or that portion which lies between the Blue and Rocky Mountains. On approaching Oregon from the sea, it presents the same bold, iron-bound coast as California, but with this difference, that the Coast Range, instead of running parallel with the Pacific, is composed of a series of highlands, nearly at right angles with the shore, through whose valleys the streams of Callapuya or Callapooya Mountains (the western limit of the Willamette Valley) descend to the ocean. The first section is about from 75 to 120 miles in breadth, and includes the Willamette, Umpqua, and Rogue River Valleys, the first running parallel with the sea, and the others at right angles to it. The last are south of the Willamette Valley. The large valleys vary in length from 40 to 150 miles, and from 5 to 85 miles in width. One remarkable feature of the Willamette Valley is the Buttes, high, conical, insulated hills, of about 1,000 feet in height. The middle section covers a breadth of 160 miles, and is mostly an elevated plateau. The upper country is mostly a sterile and dreary region, covered with lava, through which the rivers cut their channels to a great depth; in many places their rocky beds are inaccessible to man or beast. Oregon may be emphatically called a mountainous country. Beginning at the east, about half-way between the Rocky Mountains and the Pacific are the Blue Mountains, running nearly north and south, but still sending off ridges in different directions. These mountains sometimes rise to the snow region, but are generally from 3,000 to 4,000 feet in height. The Cascade range, having the loftiest known peaks of any mountains in the United

States, extend from 60° north latitude nearly parallel with the Pacific to the southern part of old California, at distances (in Oregon) varying from about 80 to 140 miles. Mount Hood, Mount Jefferson, Mount Pitt or McLaughlin are the principal peaks in Oregon, of which the first, 14,000 feet in elevation above the sea level, is the highest, and seems to be a dormant volcano. Finally comes the Coast Range, called in Oregon the Callapooya Mountains; these, as has been stated, send off spurs at right angles with the ocean.

MINERALS.—The mineral resources of Oregon have scarcely begun to be developed; but gold has been found in various places, from Port Orford to Burnt and Powder Rivers, but whether it exists in sufficient abundance to promise profitable returns is not yet fully ascertained. The Secretary of the Treasury's report for 1854 gives \$13,535 as the amount of gold deposited at the mint, the product of Oregon. Fremont found, in latitude 45½° north, longitude 122° west, a stratum of coal and forest trees embedded between strata of alternate clay. This mineral is also known to exist in Willamette Valley, 100 miles above Oregon City.

RIVERS, BAYS, AND LAKES.—There is no very considerable bay in Oregon. The Columbia, the greatest river on the Pacific slope of the continent, forms half the northern boundary, from the point where it strikes the 46th parallel to its mouth in the Pacific Ocean. Its great branch, the Snake or Lewis River, and its tributaries the Salmon, Henry, Malheur, and Owyhee, drain the great valley between the Rocky and Blue Mountains. Lewis River rises in the south-east, and pursuing a north-west course about 900 miles, passes into Washington Territory, where it joins the Columbia soon after. The Walla Walla, Umatilla, John Day's, and Fall, east of the Cascade Mountains, and the Willamette, west, are the other principal affluents of the Columbia from this State. The Umpqua and Rogue's River (entirely in Oregon), and the Klamath, which passes into California, empty directly into the Pacific from the south-west of this State. There are several small lakes between the Cascade and Blue Mountains. The principal are Klamath, Albert, Pitts, Salt, and Synaldels. The Columbia is navigable to the Cascade range, about 130 miles from the sea, for large vessels, and above the Cascades for boats. The Willamette is navigable to Portland, and sometimes even to the falls, for ocean craft. Above the falls, large steamboats may run for 80 miles during eight months. The Umpqua is navigable 25 miles for steamers, and vessels drawing 12 feet may enter its mouth. The Klamath is also navigable for a short distance. There are few capes or harbors on the coast of Oregon, which are remarkably free from great sinuosities. The most important capes are Cape Blanco or Orford, Cape Foulweather, and Point Adams. The harbors are the Columbia River, much obstructed by sandbars and shoals, but admitting vessels of 16 feet draught, and the Umpqua River which may be ascended by vessels drawing eight feet water for a short distance.

OBJECTS OF INTEREST TO TOURISTS.—What we have already said of the mountains is, perhaps, sufficient, without this heading; but Or-

egon has other objects of interest independent of her sublime mountain scenery, first among which are the Dalles of the Columbia River, a narrowing of the channel to 100 yards between basaltic rocks, for the distance of half a mile, through which the river rushes with great violence, descending 50 feet in two miles. In freshets the water rises 60 feet, and at such times it is safe to pass in boats, but many serious accidents have occurred from attempts to pass them at low water. Forty miles below the Dalles, where the river breaks through the Cascade range, the channel again narrows to 150 yards, where the water descends 40 feet in two miles. The falls of the Willamette, on the river of the same name, are about 25 miles from its mouth, and the same number of feet in height. Here is a favorite salmon fishery, where that fish is stopped on its course up the Willamette, in the spawning season. The American Fall, in the Lewis River, near its head waters, is of considerable elevation. From one point in the Willamette Valley, near the Rickreall River, seven peaks of the Cascade range, covered with everlasting snow, can be seen at one view.

CLIMATE.—In common with the western shore of all continents, Oregon has a milder climate than the eastern side of North America. The coast region is the mildest, and the upper country the most rigorous in temperature. In the first, the winters generally are short, though some snow falls nearly every winter. South and south-west winds prevail at this season, mitigating the severity of the climate. From April to November but little rain falls. At Fort Vancouver, from June to September, the mean temperature was 67°, maximum 98°, minimum 51°. Of 106 days, 76 were fair, 19 cloudy, and 11 rainy. The winter of 1852-3 was very severe, and much snow fell, the stock dying by thousands, as they are unhoused, and no fodder is ever prepared. In the middle region the summers are much dryer and the winters colder than east of the Cascade Mountains, the extreme varying from 18° to 108°. Daily range 40°. No dews fall here. The upper country is variable, having often in each day all the changes of the seasons, and is, therefore, unfitted for agricultural operations. Indian corn is liable to be caught by early frosts. The winter winds are from the south and east, occasionally veering to the south-west. The time of the setting in of these is very irregular, varying from October 1st to January 1st. They always bring with them copious rains, which last two or three, and even four or five months, from November to April, and constitute the rainy season. These storms are more violent on the coast, and more rain falls than in the Willamette Valley. A period of fine weather often occurs in February, sometimes in March, but is generally followed by three or four weeks of cold, chilly rains from the south-west. During the latter part of winter there are light falls of snow. Though the winters are chilly, the thermometer seldom sinks to the freezing point. The mercury has sometimes fallen to 5° below zero in the Willamette Valley, and to 15° at the Dalles, beyond the Cascade Mountains. From what has been said, it will be seen that there is great irregularity in the winters of Oregon, but mildness is the general characteristic. In the middle region the rains are lighter and less constant, and continue for a shorter period.

The country beyond the Blue Mountains is very dry, with a great difference between the temperature of day and night.

SOIL AND PRODUCTIONS.—It will be inferred from what has been said of the face of the country, that much of Oregon is unfit for tillage; in the upper country or eastern portion it is almost wholly so, as far as known, both from the aridity of the soil and the irregularity of the climate. The central portion, though not generally cultivable, affords in many places excellent pasturage; but even the pasturable portion is but a small part of the whole. The great resource of the Oregonian farmers is the country west of the Cascade range, especially in the Willamette, Umpqua, and Rogue's River Valleys. The former is rarely surpassed in fertility. Wheat is here the staple; the cool evenings and the drought in the latter part of summer being unfavorable to Indian corn. Besides wheat, oats, barley, turnips, and most of the fruits and vegetables of the Middle States flourish. The indigenous fruits are the crab-apple, a large red plum, strawberries, raspberries, and other berries. The bottoms of the Columbia are a very rich alluvion, but incapable of cultivation, from their liability to be overflowed; they may, however, form good pasture lands for stock. Those portions which are beyond the reach of overflow (as the district about Fort Vancouver) are exceedingly productive. On the triangle formed by the Columbia on the north and the Pacific on the west, is a tract of land of great fertility, extending back 25 miles to the mountains. This is not suited to wheat, but very fruitful in potatoes, oats, peas, turnips, and other vegetables, and is excellent for pasturage.

According to the United States census of 1860, there were in Oregon 895,375 acres of improved land in farms, 5,316,817 acres of unimproved land in farms. The cash value of the farms was \$14,765,355, and of agricultural implements and machinery, \$949,103. There were in the State 36,600 horses, 990 asses and mules, 53,072 milch cows; 7,426 working oxen, 93,001 other cattle, 75,936 sheep, and 79,660 swine. The value of the live stock was \$6,272,892, and the value of the animals slaughtered during the year was \$640,196.

There were grown in the year 822,408 bushels of wheat, 2,714 of rye, 74,566 of Indian corn, 900,204 of oats, 215 pounds of tobacco, 208,943 pounds of wool, 34,616 bushels of peas and beans, 311,700 of Irish potatoes, 335 of sweet potatoes, 26,463 of barley, and 2,685 bushels of buckwheat.

The value of the orchard products for the year was \$474,934, the number of gallons of wine produced was 2,603, and the value of the garden products for market was \$86,335.

The annual product of butter was 1,012,339 pounds; cheese, 82,456 pounds; hay, 26,441 tons; clover seed, 307 bushels; other grass seeds, 3,793 bushels; hops, 187 pounds; flax, 640 pounds; sorghum, 419 gallons; beeswax, 334 pounds; honey, 627 pounds. The value of the home-made manufactures in the year was \$45,914.

FOREST TREES.—Oregon is particularly celebrated for its forests of gigantic pine. A species of fir, called Lambert's pine, grows in the lower region to an enormous size, sometimes attaining a height of nearly 300 feet, and a girth of 40 feet, and often from 24 to 36 feet. This is the

great timber of the country, and is largely exported to the Sandwich Islands and to California. The other timber is the hemlock, cedar, oak, ash, maple, laurel, pine, willow, balm of Gilead, dogwood, cotton-wood, and alder. The oak, next to the fir, is the most valuable wood, and is found mostly in the Willamette and Umpqua Valleys. In the middle region timber is scarce, and consists mostly of soft wood; pine and fir grow on the Blue Mountains.

ANIMALS.—The wild animals are deer, black and grizzly bears, elks, foxes, wolves, antelopes, beavers, muskrats, and martins. The beavers are fast diminishing. In spring and fall, geese, ducks, and other water-fowl are abundant. Large quantities of salmon are caught in the Columbia River and its tributaries, and are of excellent quality. Among the other fish are sturgeon, cod, carp, sole, flounders, ray, perch, herring, and smelt, with crabs, clams, oysters, and muscles in abundance.

MANUFACTURES.—In this department of industry it is hardly to be supposed that this new region has made much progress, though she has every facility for carrying on manufactures when the time comes for doing so. In 1860 there were in Oregon, according to the national census, three hundred manufacturing establishments, in which was invested a capital of \$1,293,000. The raw material used in them, including fuel, was valued at \$1,452,000. The average number of male hands employed was 996, and of females, ten. Their annual manufactured product was estimated as worth \$3,138,000.

COMMERCE.—Most of the foreign trade of Oregon is done by steamers with San Francisco and Victoria in British Columbia. Goods are sent by land to British Columbia up the valley of the Columbia River. Several steamers ply from Portland to different points on the Columbia, besides a regular line of steamers to San Francisco. Oregon exports to California lumber, stock, hogs, beef, butter, eggs, chickens, pork, flour, etc. Large quantities of cattle are driven south to the mines of California. Trade is carried on with Rio Janeiro, Europe, and the Sandwich Islands. The chief exports of domestic produce are wheat, flour, apples, cattle, pickled salmon, eggs, butter, and chickens.

EDUCATION.—Oregon has a common school fund, consisting of the proceeds of lands granted to the State for that purpose; all escheats, forfeitures, moneys paid for exemption from military duty; all gifts and devises for common school purposes; the proceeds of the 500,000 acre grant; the five per cent. net proceeds of the sales of public lands in the State, etc., the interest of the fund to be divided among the counties in shares proportioned to the children in each between four and twenty years of age. The Governor, Secretary of State, and State Treasurer comprise the Board of School Commissioners. There was in the Treasury, September 10, 1860, to the credit of the common school fund, the sum of \$11,534, besides a university fund of \$5,794. There were in the State at that date two colleges, seven academies, and about three hundred common schools. At the close of 1862, four colleges had been incorporated, one of which was an agricultural college, and very liberal grants of lands had been made by Congress for the benefit of common schools.

POPULATION.—The aggregate population of Oregon, according to the United States census of 1860, was 52,465. Of these 31,515 were white males, 20,822 white females; total whites, including taxed Indians and Chinese, 52,337. There were in the State 76 free colored males and 52 free colored females; total free colored, 128. The total vote cast by Oregon in 1860 was 13,908; for President in 1864, 18,345, and for Governor in 1866, 20,299. The total population of the State was estimated in 1865 at 70,000.

GOVERNMENT.—The executive government of Oregon is vested in a Governor, a Secretary of State, and a Treasurer of State, who are chosen by a plurality of votes for four years. The State Constitution of 1857 provides that the Governor should be *ex officio* Superintendent of Public Instruction, but that after 1862 a separate Superintendent might be elected. The Secretary of State is *ex officio* Auditor of Public Accounts. The Governor, Secretary of State, and Treasurer are eligible for any number of terms, though not for more than two in succession. A State Printer is chosen by popular vote for four years.

The Legislature is composed of a Senate of sixteen members and a House of thirty-four members. The Senators are chosen in single districts for four years, one-half every two years; and the Representatives are elected for two years. Their numbers may be increased, but are never to exceed fifty Senators and sixty Representatives. The Legislature meets biennially at Salem on the second Monday in September. Extra sessions may be called for any period not exceeding twenty days.

The Superior Court of the State consists of a Chief-Justice and four associate Justices, who are chosen in districts for six years, the oldest or the one having the shortest term to serve being Chief-Justice. Their number is not to exceed five—the present number—until the white population is over 100,000, and is never to exceed seven. The Superior Court has only appellate jurisdiction. Each Judge of the court, however, holds a Circuit Court with both original and appellant jurisdiction, the terms being so arranged that a court shall be held twice a year in each county. Whenever the population of the State shall exceed 500,000, the Legislature may provide for the election of Supreme and Circuit Judges in distinct classes. Inferior judges, who also act as Probate Judges and as County Commissioners, are chosen in each county for four years. Sheriffs and Clerks of courts are elected in each county, and District Attorneys are chosen by districts. The general State election is held biennially on the first Monday in June, in the even years.

FINANCES.—There is no power in the State of Oregon under its Constitution to lend its credit or contract obligations to a greater amount than \$50,000, except to repel invasion, or for certain other specified objects. No county can incur a debt of over \$5,000, with the like exceptions. No bank or moneyed institution shall ever be incorporated, and none such shall ever exist with power to circulate paper as money. Corporations may be formed under general laws, but shall not be created by special acts, and the stockholders shall be individually liable to the amount of their stock subscribed and unpaid, and no more.

The receipts into the State Treasury for the two years ending September 8, 1862, were \$91,788, and the expenses during the same period were \$55,831. The State tax payable in 1861 was \$48,475, on a valuation of property at \$23,886,951; and the tax for 1862 was \$43,117, on a valuation of \$21,288,931.

COUNTIES.—The following are the counties in Oregon, with their several county towns, and also the population according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Benton,	Cornwallis,	8,074	Linn,	Albany,	6,772
Baker,	Auburn,		Marion,	Salem,	7,088
Coos,	Empire City,	445	Multnomah,	Portland,	4,150
Clackamas,	Oregon City,	8,466	Polk,	Dallas,	3,625
Clatsop,	Astoria,	498	Tillamook,		95
Columbia,	St. Helen,	582	Umatilla,	Umatilla,	
Curry,	Ellensburg,	393	Umpqua,	Elkton,	1,250
Douglas,	Roseburg,	3,208	Union,	La Grande,	
Frank,	Canon City,		Wasco,	Dalles,	1,689
Jackson,	Jacksonville,	3,786	Washington,	Hillsboro,	2,801
Josephine,	Kirbyville,	1,623	Yam Hill,	Lafayette,	3,245
Lane,	Eugene City,	4,780			

CITIES AND TOWNS.—*Portland* is the metropolis of Oregon, and its chief seaport. It is situated on the west bank of the Willamette River, 2 miles above its junction with the Columbia, and 120 miles from the Pacific Ocean by the course of the latter River. Its site is a plain about 30 feet above the level of the river, surrounded by dense forests of tall spruce, fir, and other evergreen trees. The town dates from 1847. The houses are generally built of wood. Ships and ocean steamers, of the largest class, come readily to this port; a wide navigation for steamboats in the Columbia and its branches spreads out below and above Portland, and it is the center of a large and increasing trade, not only for the Willamette Valley, but for the mining regions of Eastern Oregon and Idaho, Washington Territory on the north, and parts even of British Columbia. Some trade in groceries and dry goods has also been carried on from this point with Salt Lake City. The population of Portland in 1865 was about 7,000. The city had an academy, under the control of the Methodists, a large establishment and school of the Sisters of Charity, a successful iron foundry, owned and superintended by Governor Gibbs, a daily paper, with a circulation of 500, and a weekly edition of 3,000 more.

Salem, the State capital, is the next town in importance to Portland. It is situated on the east bank of the Willamette River, about 40 miles south of Portland by way of the river. It contains the State Capitol, and is a thriving inland town.

Cornwallis is 20 miles further south on the west bank of the same river. This town was, at one time, selected by the Territorial Legislature for the capital; but the Federal Government had appropriated

money to build a capitol at Salem, and refused to recognize any other place.

Oregon City is nine miles south of Portland, at the falls of the Willamette River. It has a great water-power, and bids fair to become an important manufacturing point. The other chief centers of population and wealth in Willamette Valley are Lafayette, Dayton, Santiam, Albany, and Eugene City.

Astoria is situated on the Columbia River, nine miles from the ocean, at a point where the river is from three to four miles wide. It has a custom-house and several saw-mills. The country east, south-east, and south from Astoria is hilly, covered with dense timber, and almost uninhabited. Astoria was at one time looked upon as one of the most promising towns on the coast; but nearly all the import and export trade of the State is done at Portland, whither the ocean steamers run regularly, scarcely stopping at Astoria save to take on or put off a pilot.

"*The Dalles*," or Dalles, so named from rapids in the Columbia River, to which Canadians in the Hudson's Bay Company gave that name, is a prosperous town on the south bank of the Columbia, about 175 miles from its mouth. The town owes its importance to the rapids in the river, which at this point has a descent of forty feet, thus interrupting the navigation, and requiring passengers and freight to be transported by land for a distance of six or eight miles. The growth of the town will keep pace with the development of the upper Columbia, the trade of which must, for some time to come at least, principally go down the river. It is, at present, the *entrepot* for the scattered mines in eastern Oregon, and also to a considerable extent for the Boise and Owyhee mines, in Idaho. The miners come to The Dalles in winter, send their earnings there, and buy many of their supplies there. Two million dollars in gold-dust came to The Dalles from eastern Oregon and Idaho in the single month of June, 1865.

In the valley of the Umpqua River are the towns of Winchester, Roseburg, Scottsburg, and Gardner. In the auriferous region of the valley of the Rogue River are Jacksonville and Althouse, the two principal mining towns in the State. On the coast, about latitude $43^{\circ} 20'$, is the village of Randolph, whose inhabitants are chiefly engaged in beach mining.

HISTORY.—Oregon seems to have been first trodden by European feet about 1775, when a Spanish navigator visited Juan de Fuca Straits. Cook coasted along its shores in 1778. The Columbia River is believed to have first been made known to the civilized world in 1791, by Captain Gray, of the ship *Columbia*, of Boston, United States, who saw the mouth of the river, but did not enter it till May of the next year, when he gave it the name of his ship. From this time up to 1804, the coast of Oregon was occasionally visited by British and American fur-traders. In that year President Jefferson sent out an exploring party, under Lewis and Clarke, who passed the winter of 1805-6 at the mouth of the Columbia. This expedition was successful, and collected much valuable information. In 1811, the American Fur Company, of which John

Jacob Astor was the leader, established a trading-post at the mouth of the Columbia River, calling it Astoria; but it was very soon sold to the North-west Fur Company, a British association, to save it being taken during the war with Great Britain which ensued. Great Britain claimed all Oregon until 1846, when the boundary treaty was made with the United States. The emigration of Americans to Oregon commenced in 1839, and the population of the country continued to increase till in 1848, and the two subsequent years, in consequence of the California gold excitement, Oregon lost many of her citizens. In 1850 Congress passed the "donation law," giving, without cost, 320 acres of public land to every person settled on such land before December of that year, and 320 acres more to his wife; and to those persons who should settle between December 1, 1850, and December 1, 1853, 160 acres to each man, and 160 to his wife. Under this law 8,000 claims were registered in Oregon. It was a condition of these grants that the settler should reside on the land for four years. This donation induced nearly all the inhabitants of Oregon to remain, and led many of the young people to marry. As the men much exceeded the women in number, girls, even as young as fourteen, were in great demand; and for several years after the "donation law" took effect, the Territory had a large proportion of very young wives and juvenile mothers.

Oregon was formally organized as a Territory on the 14th of August, 1848, previous to which it had been under a provisional government, with the capital at Oregon City. On the 2d of March, 1853, the Territory of Washington was established out of the northern part of Oregon. In the summer of 1857 a Constitutional Convention was held in Oregon. It drew up a State Constitution, which was submitted to the people November 9, 1857. At the same time two questions were also submitted: whether slavery should be legalized in the new State, and whether free negroes should be permitted to reside in it. The result was, that the popular vote was in favor of the Constitution, but against slavery and free negroes. The State was admitted into the Union under the Constitution adopted in 1857, by act of Congress passed February 14, 1859. But in admitting Oregon into the Union as a State, Congress cut off from its eastern end nearly one-third of its extent as a territory, adding to Washington Territory the district between the Owyhee River and the Rocky Mountains. This district has since been taken from Washington, and now forms a part of Idaho Territory.

NAVIGATION OF THE COLUMBIA RIVER.—The Oregon Navigation Company, organized in 1861, to open the navigation of the Columbia River and its branches, which drain a country of immense extent, had in 1865 over twenty steamboats running, and by means of short railroads built around the Cascades and the Dalles, and wagon roads from the Dalles, from Umatilla and from Wallula, had established the cheapest and quickest route for travel or freight from all parts of the coast to the rich mines of Boise and Owyhee in Idaho. Between 1861 and 1865 their boats carried to the upper Columbia upwards of 65,000 tons of freight and 100,000 passengers. Measures

were in progress in 1865 to push their communications by means of the navigation of the Snake River, into the heart of the Idaho gold regions, and on beyond toward Utah.

EARTHQUAKE AT FORT KLAMATH.—We take from the "Oregon Sentinel" the following letter, dated Fort Klamath, Oregon, January 8, 1867, giving the particulars of a fearful earthquake in that locality:

"We have singular, if not serious, news to send by the express just leaving. This morning at daylight we were startled from sleep by the precipitate shock of an earthquake, immediately followed by the noise of a distant thunder. But in a little while quiet reigned; every one was conversing and laughing heartily over the singular phenomenon, but our countenance soon underwent a serious change, for it began to grow dark; the whole heavens were full of a very black smoke or cloud; the air had a sulphureous smell, and ashes of a brownish color fell as fast as I ever saw it snow. We had to use candles in the mess-room. The most of us went into breakfast, but had only got fairly into our seats when, horror upon horror! the earth seemed rolling like waves on the ocean. Every one was thrown to the floor, and only regained their feet to be placed in the same situation. With the rattling of dishes, crashing of window-glass, crackling of timbers of the building, and the screams of frightened boys, you could not imagine a more perfect chaos. Some of us gained the door, and such a sight as met our gaze!

"The tall pines around the fort seemed lashing themselves into fury. The wagons in front of the stable were engaged in pitched battle; horses and cattle lying crouched upon the ground, uttering most pitiful moans; dogs howling, and the unearthly yells of the Klamath Indians encamped near the fort, completed the scene. We imagined we were amid the wreck of matter and the crush of worlds. The sutler's store was thrown about twenty feet from its former position. There were no lives lost, and no serious accidents to any one; there were quite a number with bruised shins and skinned noses. No serious damage to any of the buildings, all being log and frame houses; but I do not think there is a whole pane of glass left at the post.

"There are many speculations as to the cause of this most singular freak of nature, but most of us are of the opinion that a volcano has broken loose near the Klamath marsh, as a continuous dark volume of smoke is seen ascending in that direction. Some of the soldiers have volunteered to go up and find out if we have a monster vomiting fire near us or not. There was about half an hour between the first and second shocks; the first was only perceptible; the second lasted, as near as can be judged from various opinions, from two to three minutes."

KANSAS.

KANSAS, one of the central States of the American Union, is bounded on the north by Nebraska, on the east by Missouri, on the south by the Indian Territory, and on the west by Colorado. It lies between the parallels of 37 and 40 degrees of north latitude, and 94 and 102 degrees of longitude west from Greenwich. It has an area of 80,000 square miles, or 51,200,000 acres. The Missouri River washes it on the north-east, and the Kansas and Osage, tributaries of the Missouri, and the Arkansas and its affluents, drain it. It was admitted into the Union as a State in 1861.

The land in Kansas has generally a limestone basis; and the soil, consisting of a dark vegetable mold, far superior to the ordinary prairie soil, is exceedingly fertile, and of great depth. It is represented as having an average depth of four feet, which, with its calcareous quality, and freedom from stone, makes it most desirable for agricultural purposes. The bottom lands along the bottoms of the rivers are equal to any in the world. The upland is composed of a continual succession of ridges and valleys, rising and falling with the regularity of ocean waves. The general direction of the ridges is north and south, except where their uniformity is broken by the courses of the streams, and the rivers are belted with timber. The upland country, diversified with hills and valleys, is rendered picturesque by groves, scattered unevenly and irregularly over the surface, sometimes on the hill-sides, but oftener in the valleys, consisting, in the former case, of the stately cotton-woods, and in the latter, of elms. Clumps of oak are found in some places. The timber of the bottom lands consists of oak, ash, elm, white and sugar-maple, and hickory. This country was formerly known among the overland travelers to Oregon and California as the region of "tall grass." The blade is coarse and rough at the edges, like the grass of Illinois. It ordinarily attains to the height of three feet, toward the close of summer; but where the land is moist, it grows more luxuriantly, and is said to become "tall enough to hide from view horse and rider." In June those rolling prairie lands are covered with gaudy flowers. The small streams are quite numerous, having their sources in springs; and though they may not entirely dry up, they are, nevertheless, "dry-weather streams," showing little more in September than pebbly beds, but swelled full, muddy, and turbulent in the spring. These streams have cut their channels down deep in the soil, forming ravines difficult to cross; but with their borders fringed with timber, and winding through the country in all directions, they add very much to the beauty of the landscape.

Immediately contiguous to the fertile plains of eastern Kansas is a narrow belt, averaging twenty miles in width, of an entirely different

character, having a sandstone basis. The country is not so rolling. Spring-water is rarely found, but there are many large rivers, together with their head streams, which flow through this tract. As a general thing, the soil would be considered too light and sandy for profitable cultivation. The traveler will observe that the hickory timber has entirely disappeared, and the few trees which he will find "are mostly the blackjack, elm, cotton-wood, ash, and willow." This region, however, is said to possess some attractions for the tourist. It has been thus described: "Here the finest patches of buffalo-grass intermingle with stunted meads of tall grass and beds of pale-green moss, long and slender, which, with the oxlip, blue and white violet, and, near the streams, a sensitive plant of yellow-cup dotted with jet, and many another of the floral sisterhood, fragile and aromatic as the field-flowers of the Atlantic, all blooming in the lively green of the vernal season, form a mosaic as agreeably contrasted as any garden of art."

Further to the westward is a region which possesses considerable interest, and affords some advantages for keeping flocks and herds. It is not a belt of country stretching, like the other two, across the State, but consists rather of long reaches of fertile and well-watered land, lying upon the banks of the tributaries of the Arkansas River, and of the Smoky Hill Fork of the Kansas. The valleys of these streams are much depressed below the level of the surrounding and intervening plains. The river bluffs often sweep away from the banks in semi-circular walls, to a distance of three and four miles, inclosing narrow sections of fertile bottom lands, covered with vegetable mold to the depth of many feet. These are studded with groves of willow and cotton-wood, and sometimes of ash, and, along the Arkansas, but rarely, groups of oak and mesquit. These alluvial lands are highly productive, but the plains are supposed to be worthless for cultivation, though finely adapted to pasturage, being covered with the buffalo-grass, "which has been described" as "a soft, slender, and a very nutritious blade, seven inches high when in perfection, but nearly everywhere so cropped down by herds of buffalo and antelope as to look like a lawn over which the scythe has lately passed."

Beyond this is the vast tract known as the American Desert, extending from Nebraska through Kansas into Texas and New Mexico. There are no small streams, and but few rivers, flowing through this desolate region. The surface is almost a dead, uniform level, sweeping in every direction to the horizon, and is composed of a heavy gray and yellow clay, destitute of rocks and stone, with not a single tree, only here and there a grease-bush, or knob of cactus, and a few juiceless blades of bitter and unpalatable grass. The desert terminates to the westward in a range of hills composed of marl and limestone, which rise abruptly from the plain, and have precipitous sides and flat tops. This narrow belt of hill country is known as the range of "buttes."

Probably the choicest lands within the borders of Kansas are those which lie along the river from which the State has taken its name. Mr. Greene, in his interesting book on the Kansas Region, gives the following description of the river: "The Kansas River at its delta is

six hundred yards wide, and for the first hundred above its average width is nearly the same; from Pottawatomie to Big Blue, it is four hundred yards; and from that to Fort Riley two hundred yards. This river is turbid, like the lower Mississippi. For one hundred and twenty-five miles from the mouth it is quite straight; above that it is crooked as the mad Missouri; but the current is less rapid; there are fewer snags, the banks are firmer, and not so often cut away for new channels. It is a good, navigable stream for three months in the year, and in very wet seasons for as many as five months. Ascending fifteen miles, to the entrance of Delaware Creek, the river is bordered with woodland and prairie; and from thence to Fort Riley both banks are heavily timbered, with here and there a high bottom of dry, rich alluvion. Along every few miles of this region fine arable bluffs project boldly into, or swell out gently from, the rippling waters that float dreamily by or glide on with arrowy sweep. On the north side there is a mound of remarkable beauty, from the western curve of which a brook, poetically named "The Stranger," pours in its pellucid tribute; and immediately above there is a great horse-shoe bend, where a tract of excellent bottom-land, high and dry, might, with much saving of labor, be inclosed by a fence of a few rods across the neck. Opposite, there is a gradually-rising grass-plot, ornamented with groups of trees, and rolling up into a bold and broad prairie. Still passing up the Kansas, from the foot of a low bluff on the north, Sugar Creek comes in, under spread of a grape thicket of several thousand acres, alternated with a rich walnut bottom. Near by an abundance of coal is found; and an undulating eminence, diversified with grove and prairie, affords an eligible site for a flourishing city. On the south, the Wakarusa flows in, near the western limit of the Shawnee Reserve. The Wakarusa, like most other Western streams, is in some places deeply indented, clearing its banks canal-like, and revealing a fat, black loam five feet in depth. Studding the banks of the rivulets, and in clumps on the prairies, are several varieties of the plum wild-cherry, the delicious pawpaw, persimmon, hazel-nut, and hickory, white and black walnut, coffee-bean, butternut, gooseberry, haw, and, of all nuts, the unapproachable pecan. The soil is well adapted to the culture of the apple, peach, pear, and currant; and produces exuberant crops of wheat, hemp, corn, buckwheat, oats, rye, potatoes, tobacco, and all the vegetables of the Eastern States. Proceeding up the Kansas, the next region of mark is that adjacent to Grasshopper Creek. Here is a bluff of more than ordinary beauty, commanding a wide and pleasant prospect. From this to Mud Creek a prairie bottom spreads out its lap of natural treasures, alluring the industrious emigrant to pause and make himself a home. At the Hundred-mile Point, on the north side, rises a lofty, handsome bluff, like an island, from out a sea of timber, its summit decorated with inwoven foliage of the oak and walnut, while afar the thick rolls of prairie surge off to the horizon, with its narrow curtain of haze separating the bright green from the brighter blue. Along the left bank the prairie dips smooth and velvety to the river's rim. Pursuing the westward route, there is a rapid alternation

of meadow and grove, affording the largest facilities for farming. Next we have Uniontown, a village of log-cabins, a mile to the south of the river. Twenty-five miles above, the Vermillion River discharges, with its umbrageous binding of timber, like a dark serpent, trailing out to the north. This stream is marked with many available mill-sites. And, in fact, it is upon the northern tributaries of the Kansas, deeply indented and of descending volume, that the most frequent and valuable water-power of the State is to be found. A short distance above, the Big Blue pours in its affluence of waters from the hills of Nebraska. From this point the southern acclivity of the Kansas Valley presses against the channel every four or five miles, inlocking intervals of enticing loveliness and snug little coves for tranquil neighborhoods; while on the northern bank there is a continuous bottom, five miles broad, stretching down stream for fifty miles—not so extensive, but in richness rivaling the American Bottom south of St. Louis, and more elevated and healthier, blessed with a salubrious atmosphere, and not subject, like that, to inundation. Immediately west of the Blue, a fine prairie slopes northward further than the eye can follow, and a lawn of several thousand acres is inclosed by a river-bend, with an isthmus of about a half a mile, while from an adjacent bluff ledges of burning-stone crop out."

The valley of the Grand River—a branch of the Arkansas—possesses a great many attractions for agriculturists. Commencing south of Fort Riley, the valley extends south-easterly, almost to the boundary of the State. Indeed, the advantages offered to the emigrant in the regions upon the Grand and Osage Rivers are fully equal to any in Kansas. The country is beautifully rolling, and inclines gently toward the south. In addition to the richness and depth of the soil, every acre of land is suitable for cultivation, being entirely free from swamps and bluffs. The timber is the best and most abundant in the State, consisting of a large growth of hickory, oak, elm, sycamore, mulberry, and sassafras, with numerous groves of maple, and here and there a clump of beeches. In both valleys there are quarries of excellent limestone, and apparently inexhaustible. Bituminous coal has been found in several localities, leading to the supposition that a coal-field underlies all that part of the State. The valley of the Grand River is well known for its numerous springs of pure and sparkling water; wells have to be sunk only some twelve feet to obtain an unfailing supply. In the vicinity of Council Grove, and, indeed, in most parts of Kansas, the soil rests upon a regular substratum of hard pan, and is thus enabled to retain a supply of moisture for the nourishment of crops in the severest droughts. The clay is very compact, and dries readily into *adobe*, or sun-made brick, such as is commonly used in Mexican structures. Council Grove takes its name from a grove, or forest rather, three miles in width and fifteen miles long, consisting, in most part, of gigantic walnuts, hickories, and oaks. And there, in 1826, a treaty was ratified between the United States and the Indians, granting a right of way from Missouri to Texas. And in the early Santa Fe trade, it was customary for parties to assemble at the grove, and organize their caravans, by appointing officers and adopting a code of laws. From thence to Santa Fe, timber is not to be

had, and caravans always carried a sufficient quantity with them for repairs. For that purpose, logs were lashed underneath the wagons, and sometimes were carried to Santa Fe and back again. On the road, further westward, the undulations of the land gradually subside into one uniform level, known as the Grand Prairie, which is of an average width of five hundred miles; and at the base of the Rocky Mountains, that prairie is said to be a thousand miles wide. The Grand Prairie is the great buffalo pasture of the West. As Mr. Green says: "The commercial value to Kansas of the prairie cattle may be inferred from the simple statement of the item that one hundred thousand buffalo rugs are now exported annually."

The Santa Fe road strikes the Arkansas at the Big Bend. The river is there about a quarter of a mile broad. The Upper Arkansas has been thus described: "From the adjacent heights the ledges of wave-like yellow sand, along the southern bank, look like wind-driven piles of wheat, beneath which, through a low and wide trench, the majestic waters sweep placid as 'the river of a dream.' *Rio Napests*, as the Mexicans name it, will probably measure two thousand miles in length from its sources to the frontiers of Arkansas. The channel is wide and shallow, with banks in many places not five feet above low-water mark. It varies from a quarter to three-quarters of a mile in width, and at certain points can be forded, except in time of freshet; but care is requisite to avoid quick-sands, and the current has a velocity and coolness that would not be anticipated from the smoothness of the surface." It has been suggested that, without very great expense, the Arkansas might be made navigable for small steamboats to the mountains. One of its branches, the Grand River, is navigable to as great a distance as the Hudson. With the seat of empire steadily removing westward, the time may come when steam navigation on the Arkansas shall reach from the Mississippi to the Rocky Mountains, a distance twice the length of the Ohio River.

Beyond Walnut Creek, a tributary of the Arkansas, at the head of a prairie slope, which rises from the very edge of the water, stands the Pawnee Rock, five miles from the river, celebrated in Indian story, overlooking a boundless expanse of country, its front and sides of highly ferruginous sandstone, covered over with the names and memorials of prairie voyagers. The atmosphere is dry. There are no marshes in the valley of the river, and no fogs arising from the stream. The *mirage* is astonishing, and oftentimes ludicrous enough. A facetious traveler, having encamped at the foot of the rock, "saw the elephant" himself, and thus describes it: "Our party were amused with a series of these grotesque transformations on the part of a buffalo, intent upon having a drink from the Arkansas. As the staid fellow unwittingly plodded along, his hump shot into a pyramid; then jauntily cooking it one side, like the beaver of a lop-eared dandy, and descending a knoll, he turned a flip-flap semerest, swallowed himself, and came out a very elegant giraffe, which shortly settled into a brown and shapeless heap; and in another second, reassumed its ancient buffalonian aspect, only to undergo momentary changes as ludicrous as before."

The Upper Arkansas Valley is said to possess a warm, quick soil, composed of vegetable mold, rather sandy, adapted to gardening, and capable of yielding support to a pastoral community. The waters of this region are frequented by the American crane, a very large bird, twice the size of the eagle. This crane is represented as "superbly white," except the tips of the wings, which are raven-black. The frogs of the Arkansas attain to an enormous size, and mingle their hoarse croaking with the doleful howling of the wolves. The atmosphere is peculiarly sweet and wholesome, and those who have breathed it pronounce it astonishingly invigorating.

In the southern part of Kansas, in the region of the Cimarron River, iron, lead, copper, and silver ores have been found, sufficiently rich to make mining profitable when the country shall have become inhabited. There are many indications of the existence of an immense bed of salt; the smaller streams soon become strongly impregnated, and numerous springs boil up in brine, within pot-shaped fountains, formed of calcareous and saline concretions. In some places the prairie is covered with crystallized salt, white as a marble floor. "This salt plain is near the mouth of the Cimarron, and extends for miles without the slightest irregularity of surface, being so low and level that the bordering streams sometimes overflow it." Adjacent to this saline tract, the river bluffs are largely composed of gypsum."

Settlements are progressing rapidly throughout Kansas. Emigrants are flocking thither from all parts of the United States. Villages are springing up as if by magic. Lawrence is located in a most delightful region, and so strong is the tide flowing into that vicinity, that the lands have been taken up in every direction. Pawnee is situated about a mile below the junction of the Republican and Chetolah Rivers. Many of the buildings are of stone. Kenilworth is destined to be a manufacturing village. It is situated on the east bank of the Republican Fork, fifteen miles above its mouth. The soil is equal to that of Illinois. The country is watered by numerous springs, and forests of good timber are in the immediate vicinity. Topeka is situated on the Kansas River, below Pawnee. It is settled chiefly by Pennsylvanians. Bituminous coal has been found, of the best quality, within two miles of this thriving settlement. Rock City, on the military road, ninety miles west of the Missouri River, is situated in a region of heavy timber. It is impossible to enumerate the towns and settlements of Kansas, or to give their respective populations; for, where yesterday the silence of nature brooded over the prairie, to-day the hammer of the builder is heard, and the voices of civilization.

Fort Riley stands near the confluence of the Smoky Hill and Republican Forks, at the head of the Kansas River. This fort was built in 1853, for the purpose of holding the Indians more completely in check, and furthering intercourse between frontier posts. It is said to be a handsome pile of buildings, constructed of limestone taken from the neighboring bluffs.

Congress, in 1855, made two appropriations for military roads in Kansas—one of fifty thousand dollars, for the construction of a road from

Fort Riley to such point on the Arkansas River as might, in the opinion of the Secretary of War, be most expedient for military purposes; and the further sum of fifty thousand dollars for the construction of a road from Fort Riley to Bridger's Pass, in the Rocky Mountains.

The climate of Kansas is very nearly that of Virginia; but it is less sultry. In the warmest days, a gentle breeze is blowing from the mountains. Spring is attended with much rain from March till June. The rivers become swollen, the roads miry, but not hub-deep, as in Indiana. It is supposed that plank-roads will never be needed in Kansas, for the soil does not soften into mud. Vegetation is early and exuberant. Plowing commences in January. December is frequently warm enough for shirt-sleeves and calico. But there are also terribly bleak days, when the north wind sweeps like a scythe across the prairies. The average depth of snow is said not to exceed three inches. The weather during the months of August, September, and October is dry; and the Indian summer lingers far into the season of winter. It is claimed for Kansas that the climate is "decidedly superior to that of Wisconsin, Iowa, and Michigan." The western plains are noted for the frequent and terrific thunder-storms that sweep over them. The lands of Kansas lie high and dry, far above the swamps and fogs of the Mississippi Valley. One great blessing which the settlers of this new State enjoy over those in other parts, is graphically described by an old squatter, thus: "Skeeters is scarce." It would seem that the tiny insects dry up and blow away. The salubrity of the climate is unquestionable.

RIVERS.—The rivers following the declination of the country all have an east or south-east course, with the exception of some of the smaller tributaries. The Missouri forms the north-east boundary through nearly a degree of latitude, with but little variation to the west, though with many windings. The Kansas, the largest river, whose course is mostly within the State, joins the Missouri just before this river enters the State of Missouri. Including its main branches, the Republican and Smoky Hill Forks, it has a course of from 800 to 1,000 miles. The latter runs nearly through the middle of the State, in a direction a little north of east. The Republican Fork rises in Colorado, but soon passes into Nebraska, which it traverses for from 200 to 300 miles, when it returns to Kansas, and joins the Smoky Hill Fork in about latitude 39° 40' west. The principal tributaries of the Kansas below the junction are, from the north, the Big Blue River, rising in Nebraska, and by far the largest, Egoma-saha, Soldier's Creek, Santelle, and Stranger Rivers, and from the south Wacharasa. The chief affluents of the Smoky Hill Fork are the Great Saline and Solomon's Forks, both from the north. The Osage rises near 97° west longitude, south of the Kansas, and passes east into Missouri. The Arkansas rises among the Rocky Mountains, and has about one-third of its course in this State. The Neosho, the Verdigris, and the Little Arkansas are its principal tributaries from Kansas, all in the south-east portion. Steamboats ascend the Kansas to Fort Riley, and the Arkansas, at high water, 100 miles within the State. The rivers in general have broad, shallow beds, which, in dry seasons, form little more than a series of pools.

ZOOLOGY.—The buffalo, elk, deer, antelope, prairie dogs, and squirrels are among the quadrupeds; and of the feathered tribes there are the wild-turkey and goose, prairie hen, partridge, golden oriole, blue-jay, redbird, crow, and a great variety of the smaller birds. Among the reptiles is the horned frog.

HISTORY.—Kansas originally formed part of the great Louisiana purchase acquired from France in 1803, and subsequently formed part of the Missouri, Arkansas, and Indian Territories, from which last it was, in 1854, erected into a separate Territory, after a stormy debate in the National Congress as to whether the Missouri Compromise (an act passed in 1820 forbidding slavery north of 36° 30' north latitude) should be repealed. The repeal was carried by a large majority in the Senate, and a decided one in the House, it being thus left to a majority of the white inhabitants of the Territory, when they might apply for admission into the confederacy as a State, to allow or forbid slavery as they might deem proper. Kansas has been, from its organization as a Territory, the scene of much suffering and distress. A border warfare scourged it for nearly five years, and it had not emerged from the effects of the marauding forays, when, in the summer and autumn of 1860, it was visited by a terrible drought, which, in the most populous districts, completely cut off the crops. The famine which followed in the winter of 1860–61, was distressing and terrible beyond description. Thousands were reduced to the verge of starvation, and a considerable number actually perished. The liberality of the people of other States, and their large contributions of grain, clothing, etc., alleviated the suffering to a great extent. This great drought can be looked upon in no other light than as one of those anomalous events for which it is difficult, if not impossible, to account. Observations have shown that Kansas, though possessing a dry atmosphere, has in ordinary years a sufficiency of rain to grow and mature its crops.

Kansas was admitted into the Union as a State at the session of Congress of 1860–61, with a Constitution prohibiting slavery.

COUNTIES.—The following table presents the counties in Kansas, their several county towns, and also the population of each county according to the census of 1860:

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Allen,	Iola,	3,082	Doniphan,	Troy,	3,083
Anderson,	Garnett,	2,400	Dora,		88
Atchison,	Atchison,	7,729	Douglas,	Lawrence,	8,637
Bourbon,	Fort Scott,	6,101	Franklin,	Ottawa,	3,089
Breakinridge,		3,197	Godfrey,		19
Brown,	Hiawatha,	2,607	Greenwood,	Janesville,	759
Butler,	Chelsea,	487	Hunter,		158
Chase,	Cottonw'd Falls	308	Jackson,	Holton,	1,936
Clay,		163	Jefferson,	Oskaloosa,	4,459
Coffey,	Burlington,	2,842	Johnson,	Olathe,	4,864
Davis,	Junction City,	1,163	Leavenworth,	Leavenw'th city	12,606
Dickinson,	Abilene,	378	Linn,	Mound City,	6,336

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS	POPULATION.
Lykins,	Emporia,	4,980	Otoe,	Louisville,	288
Lyon,			Pottowatomie,	Manhattan,	1,629
Madison,		686	Riley,	Salina,	1,224
Marion,	Marion Center,	74	Saline,		
Marshall,	Mayeville,	2,280	Shawnee,	Topeka,	8,513
McGhee,		1,601	Wabaunsee,	Wabaunsee,	1,023
Miami,	Paoli,		Washington,	Washington,	388
Morris,	Council Grove,	770	Wilson,	Syracuse,	27
Nemaha,	Seneca,	2,486	Woodson,	Neosho Falls,	1,488
Neosho,	Osage City,		Wyandotte,	Wyandotte,	2,600
Osage,	Burlingame,	1,118			

AGRICULTURAL STATISTICS.—According to the national census, there were in Kansas in 1860, 372,835 acres of improved land in farms, and 1,284,626 acres of unimproved land in farms. The cash value of the farms was \$11,394,184, and of farming implements and machinery, \$675,336. The number of horses in the State was 18,882; asses and mules, 1,430; milch cows, 26,726; working oxen, 20,133; other cattle, 41,000; sheep, 15,702, and swine, 128,309. The live stock was valued at \$3,205,522, and the animals slaughtered at \$547,450.

The annual produce of wheat was 168,527 bushels; rye, 3,928; Indian corn, 5,678,834; oats, 80,744; tobacco, 16,978 pounds; wool, 22,593 pounds; peas and beans, 10,167 bushels; Irish potatoes, 283,968; sweet potatoes, 9,221; barley, 4,128, and buckwheat, 36,799 bushels.

The yearly orchard products were valued at \$724. There were produced 241 gallons of wine, and the value of the garden products for market was \$36,353. There were made 1,012,975 pounds of butter, and 28,053 pounds of cheese. There were gathered 50,812 tons of hay; 98 bushels of clover-seed; 2,633 bushels of other grass seeds, and 130 pounds of hops. Of dew-rotted hemp, the annual product was 44 tons. There were made 1,548 pounds of maple sugar, 79,482 gallons of sorghum, 467 pounds of beeswax, and 14,942 pounds of honey. The value of the home-made manufactures was \$15,371.

MANUFACTURES.—There were in Kansas in 1860, according to the census taken that year, 299 manufacturing establishments, with a capital invested in the same of \$1,063,000. The value of the raw material annually used in the same, including fuel, was \$669,269. The average number of male hands employed was 1,719, and of female hands, none. The total value of manufactured products for the year was \$2,800,000.

FINANCES.—The liabilities of Kansas for the year ending November 30, 1865, were as follows:

Amount of 7 per cent. bonds.....	\$204,000 00
“ 6 per cent. funding.....	54,400 00
“ 7 per cent. military.....	98,000 00
“ 6 per cent. bonds refunding taxes.....	89,675 00
State warrants outstanding.....	59,455 92
Territorial warrants.....	10,962 11
Military.....	5,920 69
Penitentiary bonds.....	50,000 00
Total.....	\$517 418 72

The resources of the State at the same time were :

Amount of uncollected State tax.....	\$101,536 74
Territorial per centum.....	71,060 83
State military expenditures, General Government.....	100,000 00
Taxes levied for 1865.....	216,766 79
Due from General Government.....	12,852 00
Funds in the Treasury.....	26,079 21
Territorial funds.....	85
Total.....	\$527,776 42

The foregoing statement shows a balance of resources over liabilities of \$10,362.70.

EDUCATION.—The Governor of Kansas, in his message to the Legislature, at the beginning of the year 1867, stated that there were 871 school districts in the State, 1,248 teachers, and 37,789 pupils.

POPULATION.—The national census of 1860 gave the aggregate population of Kansas as 107,206. The number of white males in the State was 58,892; and of white females, 47,689; total number of whites, including 189 taxed Indians, 106,579. The number of colored males was 286, and of colored females, 341; total number of colored, 627. The total vote cast by Kansas for President, in 1864, was 19,382, and for Governor, in 1866, it was 27,530.

The State census was taken in May, 1865. Complete returns had been received at the close of the year from all the counties but three. The returns showed a total population in the State of 135,807, and thus exhibited a gain in five years of 28,901. In four counties there was a slight decrease of population; all the others showed an increase, varying from nearly one hundred per cent. in Leavenworth and Douglas Counties to two or three per cent. in Davis and Marshall. In consequence of the return of the State volunteers since the census was taken, and the annual influx of immigration, larger in 1865 and 1866 than for several years before, it is probable that the population of Kansas now exceeds 150,000, or has gained more than fifty per cent. on the census of 1860.

GEOLOGY.—The geological survey of Kansas, undertaken by Professor Swallow, had, at the close of the year 1865, embraced little more than the southern portions of the State. The result of his partial examinations indicate great mineral resources. The coal formation is of large extent and very rich. One vein alone, having an average thickness of six feet, extends over an area of 17,000 square miles, and will,

it is estimated, yield a thousand million tons. There are others varying from one to five feet in thickness. The central and western portions of the State appear to contain inexhaustible beds of gypsum from fifteen to one hundred feet in thickness, and of incalculable value. There are, besides, beds of iron ore, which underlie a great portion of Kansas, capable of producing a fine quality of metal. In several rivers in the southern part of the State, explored by Professor Swallow, the crude ore had washed out from their banks, and was scattered in their beds in enormous quantities. Kansas has also rich deposits of lead, and in several counties petroleum has been discovered.

SALT REGION.—Another great source of wealth will doubtless be found in the salt springs which exist above Fort Riley, in the valleys of the Republican, Solomon, and Saline Forks. These are so abundant, and of such uncommon strength as sensibly to affect the quality of the water of the large streams which flow through those valleys into the Smoky Hill. These salines are supposed to have their center near the confluence of the Solomon and Smoky Hill. Hundreds of acres are covered with incrustations of pure salt on the surface of the ground, from three-eighths to half an inch in thickness. These remarkable formations come from brine oozing up from below, and not from surface flowings, so that crystallization succeeds crystallization on the removal of the salt already formed. Wells sunk 25 to 30 feet below the surface produce brine of more than three times the strength of sea-water, from which salt of remarkable purity is obtained. Chemical analysis, it is said, proves that the brines of Kansas contain less than four per cent. of impure matter, showing in this particular a marked superiority over those of New York, Michigan, and other States. The dryness of the atmosphere is favorable to the successful manufacture of salt by evaporation. Kansas seems destined to become one of the greatest salt-producing States.

SOIL AND CLIMATE.—The soil of Kansas is of a richness unsurpassed in any part of the United States, and capable of many years' culture before being exhausted. The climate is healthy, and calculated to cure many diseases prevalent in the Eastern States. The popular impression that a sufficient quantity of rain does not fall there for agricultural purposes is asserted to be without foundation in fact. From records kept at the military posts, it appears that during the past forty years there has been a sufficiency of rain except in 1860; and the drought of that year would have been less severely felt had Kansas, like the older States, been provided with a surplus of food from former years.

WOOL-GROWING.—The production and manufacture of wool promises to be an important branch of industry in Kansas. A large portion of the State is well adapted to sheep-raising, and so profitable had this proved, that in 1865 woolen-mills were in process of erection at Atchison. It was estimated that during 1866, 75,000 to 100,000 sheep would be imported from the Eastern and Middle States.

RAILROADS.—For the development of their great agricultural and mineral resources, the people of Kansas have been for some years past

actively engaged in establishing railroad communication with the Eastern and Pacific States. At the close of the year 1865, nearly fifty miles of the Kansas (lower) branch of the Union Pacific Railroad, which commences at Wyandotte, at the mouth of the Kansas River, and is destined to connect with the main line in Western Nebraska, were completed. Surveys had been extended to the one-hundredth meridian, a distance of about 381 miles; and there was a party in the field making surveys of the Smoky Hill route, who were to extend their labors to Denver City, about 581 miles from the eastern terminus of the road. The Atchison branch of the Union Pacific Road was also well under way, and the first forty miles, it was supposed, would be completed by May 1, 1866.

In addition to these enterprises, projects were also advanced for lines terminating at Galveston, on the Gulf of Mexico, and at Santa Fe.

At the beginning of the year 1867, the Governor of Kansas, in his message to the Legislature, stated the number of miles of railroad in the State at three hundred, and that the Union Pacific Company expected to complete two hundred miles more during the year.

Early in February, 1867, the people of Douglas County voted in favor of a subscription of \$300,000, in county bonds, to the capital of the Leavenworth, Lawrence, and Galveston Railroad. This, it was said, would insure the immediate commencement of the work at Lawrence.

At the beginning of 1867, the Wyandotte branch of the Pacific Railroad had been completed twenty miles west of Fort Riley. The road was graded forty miles beyond, and under the contract it was to be finished to the three hundred and eighty-fifth mile by the first of January, 1868. The earnings of the road were nearly \$80,000 per month, and were expected to average \$100,000 per month in 1867.

CITIES AND TOWNS.—*Lawrence*, a city, and the capital of Douglas County, is situated on the right bank of the Kansas River, 70 miles from its mouth by the windings of the stream, and 43 in a straight line. It is built on a slope, and many of its buildings are constructed of brick or stone. It has churches belonging to the Baptists, Congregationalists, Episcopalians, Methodists, Presbyterians, Roman Catholics, etc.; newspapers, saw and grist-mills, a machine-shop, coach and wagon factories, a tannery, a soap and candle factory, a brewery and distillery, and a large number of hotels. It is well supplied with schools. The population of the city in 1860 was about 2,500. It was founded in 1854 by emigrants from the Eastern States. A salt well sunk about the beginning of the present year (1867), within the corporate limits of Lawrence, it was stated, was yielding one hundred bushels of salt daily, with only a small cistern pump. A company had been formed and works were to be forthwith erected.

Leavenworth, a city, and the capital of the county of the same name, is situated on the right bank of the Missouri River, three miles below Fort Leavenworth, and 500 miles from the mouth of the river. The city has straight avenues, crossing each other at right angles. It is lighted with gas. It embraced in 1860 twelve churches, seven schools, eight banking-houses, eleven hotels, thirteen lumber-yards, seven

steam saw-mills, a flour-mill, a machine shop, three soap and candle factories, six breweries, two coach and wagon factories, one sash and blind factory, four brick-yards, and various other manufacturing establishments. Three daily and five weekly newspapers were published, one of which was in German and one in French. Leavenworth was founded in 1854, and contained in 1860 a population of about 10,000. It is connected with St. Joseph and Jefferson City by steamboat and railroad lines.

Lecompton, formerly the capital of Kansas, before it became a State, is situated on the Kansas River, about midway between Topeka, the State capital, and Lawrence, and 60 miles west from Westport in Missouri. It is the seat of the United States land-office, and \$50,000 was appropriated by Congress to erect the Government buildings it contains.

The other principal cities and towns in Kansas are Atchison, Doniphan, Elwood, Manhattan, Ossawatimie, and Topeka, the State capital.

One of the most notable places in the settlement of Kansas after its Territorial organization in 1854, is Atchison, situated in the north-eastern corner of the State, on the west bank of the Missouri, and in a great bend of that river, which makes it the most western town in either Kansas or Missouri. It is about 50 miles north-east of Lawrence, 500 from St. Louis, and about 20 above Leavenworth, and the same distance from St. Joseph, the metropolis of northern Missouri. A railroad on the opposite bank of the river places Atchison in communication by rail as well as by river with St. Joseph, Leavenworth, and the important points above and below. It is the starting-point of the overland mail for the mining regions and California, and the headquarters of the stage company; and also one of the chief points on the border for the transshipment, from cars and steamboats to wagons, of goods of all sorts bound to the mines of Colorado, Idaho, Utah, Montana, etc. Nebraska City and Omaha in Nebraska, St. Joseph in Missouri, and Leavenworth and Lawrence in Kansas, are rivals of Atchison in the great business of freighting to the West; but from its local position and advantages, Atchison probably does more of the outfitting and forwarding than any other one town.

Topeka, the capital of the State, is on the south side of the Kansas River, 50 miles west of Westport, Missouri, and 25 miles west of Lawrence. It is handsomely laid out, with streets 130 feet wide, and crossing each other at right angles. It has several fine blocks of buildings, and is quite an active business place.

Fort Leavenworth, a well-known military post, is situated on the west bank of the Missouri River, three miles above Leavenworth City, 31 miles above the mouth of Kansas River, four miles below Weston, Missouri, and in latitude $39^{\circ} 21'$, and longitude $94^{\circ} 44'$. This is the oldest fort in Missouri, having been established in 1827. It is the great military depot for the frontier posts, and the general rendezvous for troops proceeding to the Western forts. The fort has a fine landing for steamboats. All the buildings are well constructed, and present an imposing appearance. Here was the rendezvous of General Kearney,

in June, 1846, before his expedition to Santa Fe, and from this point started the expeditions of General Joseph Lane in 1843; Captain Stansbury to Salt Lake in 1849; the surveyors of the Central Pacific Railroad route in 1853; Colonel Fremont, for a similar purpose, in the same year, etc.

Fort Riley, established in 1853, is situated at the junction of the two main branches of the Kansas River, the Smoky Hill and Republican Forks. It is 140 miles from Fort Leavenworth, and in latitude $39^{\circ} 3'$, and longitude $96^{\circ} 24'$, and lies on an elevation of 926 feet above the Gulf of Mexico. It is in the midst of a fertilizing country, abounding in timber, good water, building materials, etc.

NEVADA.

"CARRY yourself," says a writer in Harper's Magazine, "carry yourself in imagination far from the centers of civilization, over weird wastes and savage wilds, to a point where the 115th degree of west longitude intersects with the 42d degree of north latitude. The head-waters of the Owyhee—there a small river or brook—are gurgling a mile or so behind you; your right foot presses the golden sands of Idaho; your left is under the spiritual jurisdiction of Brigham Young, while at your feet the unerring eye of science marks out the north-eastern corner of the new State of Nevada. Travel thence due west for a hundred miles, over rugged mountains, lofty buttes, and patches of desert and valley, and you reach the Mica Hills, glittering in the sunlight like cones of gold; thirty miles more in the same direction will bring you to the divide between the waters of the Columbia River and the Great Basin; a hundred miles more still due west, and you are in a wondrous country of petrified trees—stony finger-points of the antediluvian past—of sparkling streams, translucent lakes, high mountains, and gloomy canons. Then you have a range of granite mountains to cross, and forty or fifty miles more carries you to the north-western corner of the young State, where, in the vicinity of Nye's Lake and Roop's Lake, 7,000 feet above the level of the sea, 250 miles from the initial point, and where the 120th line of west longitude crosses the 42d parallel of north latitude, the State of Oregon stretches to the north, and Lassen County, California, faces you on the west.

"Southward thence along the 120th longitudinal line, with California on your right and Nevada on your left, pursue your course. You will need the wing of an eagle and the eye of a bee to follow this line. The somber Sierras, crowned with tresses of pine, frowning with battlements of barren rock, wrinkled with mighty canons, and set with a tiara of glittering lakes, will be your companion for hundreds of miles. You skirt the western border of Honey Lake, and pass over the center of the inland sea of the Sierras, Lake Bigler, or, as it is now called, Lake

Tahoe, from the Pahutah designation of Big Water. About thirty miles from the northern end of this lake, some ten miles from the eastern shore, at a point where the 120th line of west longitude intersects the 39th parallel of north latitude, the boundary line strikes off in a south-easterly direction, at an angle of about forty-five degrees, following the sweep of the Sierras for 200 miles to a point where the 37th parallel of north latitude intersects the 117th degree of west longitude.

"Thence across a region seldom or never trod by the foot of man; along the line of desolate Arizona, with the burning sands of the distant Colorado heating the air to intensity—sixty miles—to the spot where the south-eastern corner of Nevada joins Utah and Arizona; thence 300 miles north along the Utah line to the point of commencement."

There are the boundaries of Nevada, extending 300 miles north and south and 250 miles east and west, on an elevated plateau between the Sierra Nevada and the Rocky Mountains.

HISTORY.—In the year 1850 Congress passed a law organizing the Territory of Utah. Within the boundaries of that Territory was the present State of Nevada. In the years 1859 and 1860 the silver mines in this region began to attract attention, and population to pour into those portions of the present State which were then known to possess valuable mines.

Besides those who crowded around the principal mines then discovered, a sparse population began to settle those valleys and favored spots along the eastern base of the Sierra Nevada Mountains, which were valuable for grazing or agricultural purposes.

In the year 1854 the county of Carson was organized by the Territorial Legislature of Utah. That county embraced the greater portion of the territory of the present State of Nevada, and the inhabitants who came to work the mines found themselves in a country the only written laws of which were the United States Constitution, and such statutes enacted by the Congress of the United States as might be applicable to their situation, and the statute laws of the Mormons. The latter were not calculated to inspire much respect in a free and enlightened community. There were no statute laws of the United States applicable to the local wants and requirements of the people. It was difficult to determine what system of laws was in force among the mining population of what was then Carson County. By some it was contended that the civil law was in force there, because when the Mormons settled the Territory of Utah it was within the Mexican Republic, where the civil law prevails. Others contended that the common law was introduced into Utah, because the Mormons generally came from countries where the common law prevails; and more especially did they contend that the common law must be held to prevail in Carson County because the entire population of miners coming from California, settling in a country then almost desert, and without written law, must be held to have brought their own laws and customs with them. While the law was in this unsettled state, Congress passed an act organizing the Territory of Nevada. This act was approved March 2, 1861.

On the first day of October, 1861, the Legislative Assembly of Nevada met at Carson City, and the first act passed by them was one adopting the common law as the rule of decision in the Territory of Nevada. The Legislative Assembly then went on to pass a few private bills and a general system of laws applicable to the wants of the people. The general laws were, to a great extent, a copy of the statute laws of California. The Civil and Criminal Practice Acts were copied, with a few slight variations, from the acts on the same subject to be found in the California Statutes. Under this system the courts continued to act as long as Nevada remained a Territory.

In the year 1863, the Territorial Legislature passed an act providing for the holding of an election on the first Wednesday of September, 1863, at which the electors of the Territory were to vote for or against the adoption of a State Government, and also to elect delegates to a Convention to frame a State Constitution. If the majority of the electors voted for a State Government, then the Convention was to assemble on the first Tuesday in November, 1863, and frame a Constitution, to be submitted to the people for their ratification or rejection. The vote in September was largely in favor of a State Government. The Convention met in November and framed a Constitution, which, on being submitted to the people at an election held in January, 1864, was rejected by a decided majority.

In the month of March, 1864, Congress passed an act to enable the people of Nevada to form a Constitution and State Government, and for the admission of such State into the Union on an equal footing with the original States. Under the provisions of this act, an election was held on the first Monday in June for delegates to the Constitutional Convention. The Convention assembled at Carson on the first Monday in July, and formed a Constitution, which was submitted to the people at an election held on the first Wednesday in September. The Constitution was ratified and adopted by a large majority. The President issued his proclamation on the 31st day of October, 1864, in pursuance of a provision in the enabling act, admitting Nevada as a State of the Union. Under the provisions of the newly adopted Constitution, an election took place for State officers on the 8th day of November, 1864, who were to take the oath of office on the first Monday of December, 1864.

THE STATE GOVERNMENT.—The following is a list of the State officers, chosen at the first general election in the new State of Nevada: Governor, Henry G. Blasdel; Lieutenant-Governor, who is President of the Senate and *ex officio* Warden of the State Prison, J. C. Crossman; Secretary of State, Chauncey N. Noteware; State Controller, A. W. Nightingill; State Treasurer, E. Rhoades; Attorney-General, George A. Nourse; Superintendent of Public Instruction, A. F. White; Surveyor-General, S. H. Marlette; Adjutant-General, John Cradlebaugh; Judges of the Supreme Court, J. F. Lewis, Chief Justice, and H. O. Beatty and C. M. Brosnan, Associate Justices.

All these officers reside in Carson City, the State capital, with the exception of the Surveyor-General, whose residence is at Virginia City.

Their salaries are as follows: Governor, \$4,000; Secretary of State, State Controller, and State Treasurer, \$3,600 each; Attorney-General, \$2,500; Superintendent of Public Instruction and Adjutant-General, \$2,000 each; Surveyor-General, \$1,000; Judges of the Supreme Court, \$7,000 each. The foregoing State officers all go out of office on the first Monday of January, 1867, except Judge H. O. Beatty, who holds till the first Monday of January, 1869, and Judge C. M. Brosnan, who holds till the first Monday of January, 1871. The Executive State officers hereafter elected will each hold office for four years, and the Justices of the Supreme Court hereafter elected will each hold office for six years.

The Legislature of Nevada consists of a Senate, the members of which are chosen every four years, and an Assembly composed of members elected every two years. The State Constitution directs that the Legislature shall hold biennial sessions, commencing on the first Monday of January, 1865.

The general election is held on the Tuesday next after the first Monday of November. Every white male citizen of the United States, twenty-one years of age, having actually resided in the State six months and in the district or county thirty days, is entitled to vote at any election.

The judicial power of the State is vested in a Supreme Court, District Courts, and Justices of the Peace. The Legislature may establish courts in incorporated cities and towns, for municipal purposes only. The Supreme Court holds its terms at the State capital. The first volume of its reports, containing its decisions in 1865, has been already published.

Under the Territorial regimen, there were nine judicial districts. The State Legislature, by an act approved February 27, 1866, re-districted the State, making eight judicial districts, and assigning one judge to each. The ten organized counties in the State were distributed among the several districts as follows, the courts to be held at the county towns: The First District comprised Storey County; the Second, the counties of Ormsby and Douglas; the Third, the counties of Washoe and Roop—the latter not organized, but attached to Washoe County for all governmental and judicial purposes; the Fourth District embraced Lyon County; the Fifth, Humboldt; the Sixth, Lander; the Seventh, Nye and Churchill Counties, and the Eighth, Esmeralda County.

The salary of the Judge in the First District is \$7,000; in the Second, \$5,000; in the Third, \$5,000; in the Fourth, \$4,500; in the Fifth, \$3,200; in the Sixth, \$5,000; in the Seventh, \$3,600, and in the Eighth, \$3,000.

The Great Seal of the State of Nevada, has, by an act of the Legislature approved February 24, 1866, the following design:

In the foreground two large mountains, at the base of which, on the right, is located a quartz-mill, and on the left, a tunnel penetrating the silver leads of the mountain, with a miner running out a car load of ore, and a team loaded with ore for the mill. Immediately in the foreground are emblems indicative of the agricultural resources of the State, as a plow, a sheaf, and sickle. In the middle ground, is seen a train

of railroad cars passing a mountain gorge; also, a telegraph line extending along the line of the railroad. In the extreme background, appears a range of snow-clad mountains, with the sun rising in the east. Thirty-six stars encircle the whole group. For an outer circle, the words, "The Great Seal of the State of Nevada," are engraven, with the words, for the motto of the State, "All for Our Country."

The State Legislature, at its adjourned session (1866), provided for the appointment of a State Geologist, authorizing a preliminary and superficial geological survey of the mineral resources of the State, and appropriating \$6,000 for defraying the expense of such survey. An act was also passed providing for establishing and maintaining a Mining School, and creating the office of State Mineralogist—his salary not to exceed \$4,000, and that of each of his necessary assistants not to exceed \$3,000. Acts were passed, at the same session, providing for the condemnation of real estate required for mining purposes, and concerning the location and possession of mining claims, repealing all previous district mining laws, and providing for the formation of new districts.

At the first State election, held in November, 1864, Delos R. Ashley, of Virginia City, was chosen to represent Nevada in Congress, the State being entitled to one Representative only. The Legislature, at its first session (1865), selected for United States Senators, William M. Stewart, whose term expires March 4, 1869, and James W. Nye, of Virginia City, whose term expires March 4, 1871. The total vote of Nevada for President, in November, 1864, was 16,420. At the State election, held in November, 1866, Henry G. Blasdell was reelected Governor, and Delos R. Ashley Representative to Congress. The total vote cast at this election for Governor was about 9,500. This vote was divided among the different sections of the State about as follows: 1,600 votes were cast in the Reese River District, 300 at Humboldt, 360 at Esmeralda, and 530 in Nye County, and the remainder, 6,720, more than two-thirds of the entire vote of the State, in the counties that depend for their wealth, and even their subsistence, wholly or mainly, upon the Comstock Lode.

AREA OF STATE AND STATE LANDS.—The State of Nevada, extending from the 37th to the 42d degree of north latitude, and from the 38th to the 43d degree of longitude west from Washington, contains an area of about 81,539 square miles, or 62,184,960 acres, of which, perhaps, 1,300 square miles, or 832,000 acres are covered with water by the several lakes. This would leave 80,239 square miles, or 51,354,960 acres, as the total land area of the State. The following is an estimate of the aggregate quantity of land belonging to the State:

The 16th and 36th sections for the support of schools,.....	2,852,942 acres.
For benefit of agriculture and the mechanic arts,.....	1,500,000 acres.
For internal improvements,.....	500,000 acres.
For University, two townships,.....	46,080 acres.
For public buildings, 20 sections,.....	12,800 acres.
For State prison, 20 sections,.....	12,800 acres.
Add 800,000 acres for each Senator and Representative,	90,000 acres.
Total,.....	5,014,622 acres.

From the redemption of swamp and overflowed lands, it is probable that the State will realize from the grants made to it by the General Government at least 5,500,000 acres. All this domain, together with five per cent. of the net proceeds of all sales of public lands made in the State by the General Government, has been, by the State Constitution, devoted to the cause of education. Thus it will be seen that the State has the material source whence can be derived a school fund of magnificent proportions.

COUNTIES AND COUNTY TOWNS.—Nevada is divided into twelve counties. The following is a list of the counties and county towns:

COUNTIES.	COUNTY TOWNS.	COUNTIES.	COUNTY TOWNS.
Churchill,	La Plata.	Lyon,	Dayton.
Douglas,	Genoa.	Nye,	Ione City.
Esmeralda,	Aurora.	Ormsby,	Carson City.
Humboldt,	Unionville.	Roop,	(Not organized.)
Lander,	Austin.	Storey,	Virginia City.
Lincoln,	Crystal Springs.	Washoe,	Washoe City.

PUBLIC INSTRUCTION.—We derive the following details from the report of A. F. White, State Superintendent of Public Instruction in Nevada, for the school year ending August 31, 1865:

The census returns showed 1,287 boys, and 1,312 girls—total, 2,599 white children—between six and eighteen years of age. The number of white children under six years of age was 1,913, and the number between 18 and 21 was 152. There were 1,348 children attending the public schools, and 725 attending private schools. The number of Indian children was 121; of Mongolian, 24; and of negro children, 23. There was only one blind person in the State, and only one who was deaf and dumb.

The average number of months during which schools were maintained was eight and five twenty-eighths. Thirty-one free public schools had been maintained without rate bills. The total valuation of school-houses and furniture was \$34,753.50; of school libraries, \$150, and of school apparatus, \$800.

In the 33 school districts in the State, there were 20 primary schools, 7 intermediate, 3 unclassified, and 3 German schools. There were 23 school-houses, 2 of which were built of brick and 12 of wood, and 9 rented buildings were occupied for public school-houses. There had been 6 new school-houses erected during the year.

The number of teachers employed was 37—14 male and 23 female teachers. The average monthly wages paid male teachers was \$89.76, and of female teachers, \$85.20. There had been issued during the year 26 first grade certificates to teachers, 21 second grade, and 5 temporary. The average monthly salary of the county school superintendents was \$37.50.

The State school fund for the year amounted to \$5,075.72, giving a little over \$1.95 to each child of school age. The percentage raised by county school tax was 15 cents on each \$100 of assessable property in the State. In Esmeralda County the percentage was 20 cents. The

receipts of the school fund from all sources amounted to \$65,277.35 for the school year, and the expenditures to \$50,732.58. The total amount of receipts into the general school fund was greater than it was the year previous by \$3,293. The number of pupils attending school was increased by 716 over the preceding year. Several school-houses in process of erection at the beginning of the year had been completed, and six new ones were begun, finished, and furnished during the spring and summer of 1865.

VOLUNTEERS AND MILITIA.—From the annual report of John Cradlebaugh, Adjutant-General of Nevada, dated January 1, 1866, we learn that during the late civil war there voluntarily enlisted into the service of the United States from Nevada 34 field and line officers, and 1,158 privates, retained for service on the plains, aiding to protect the great overland highway, and also the settlements upon the frontier, from Indian incursion and depredation. The number of enrolled militia in the county of Ormsby was 731; in Esmeralda, 550, and in Churchill County, 131. These were the only counties from which returns had been made.

FINANCES.—It appears by the annual report of A. W. Nightingill, State Controller, that the receipts into the State Treasury, from all sources of revenue, during the first fiscal year, commencing November 1, 1864, and ending December 1, 1865, amounted to \$466,147.31. The total amount of expenditures for the same period was \$463,416.04. The State indebtedness, on the 31st of December, 1865, was \$423,316.27, nearly three-fourths of which was territorial indebtedness assumed by the State.

COUNTY STATISTICS.—The following facts and statistics, relating to eight of the ten counties in Nevada, are condensed from the reports of the county assessors, and embraced in the annual report of S. H. Marlette, Surveyor-General, for the year 1865.

Churchill County has 30,000 acres of natural hay land. The mountains and valleys in all the mountain ranges afford an excellent quality and an abundant quantity of nutritious bunch-grass. During 1865 the loss of hay in the county from the overflow of water and from drought was estimated at 1,000 tons, at \$40 per ton; the loss of barley at 300 tons, at \$120 per ton, and other losses on Old River, from the same causes, at \$15,000. There are in Churchill two salt marshes, extending over 19,000 acres, beside others which furnish good salt. There are also large deposits of soda and sulphur. There were three quartz-mills in progress of erection, at a total cost of \$375,000, with fifty stamps, which were to commence work the next spring. The hay product in the county in 1865 was 2,000 tons. It had 300 work oxen, 300 other cattle, and 350 horses. It contained 50,000 acres of farming and grazing land.

Esmeralda County had 17 quartz-mills; 12 of them had steam and one water-power; the horse-power of the engines was 497; 16 mills had 169 stamps; the mills employed from 500 to 1,000 men; the erection of 14 mills cost \$950,000. All the mills worked by wet crushing. One ten stamp mill at Silver Peak crushed 10 tons per day and

employed 60 men. There was one saw-mill in the county worked by water-power. There were four toll-roads, about 125 miles in length. The county produces plumbago, coal, fire-clay, salt in abundance, alum and lime-rock. The price of lumber was from \$30 to 40 per 1,000 feet; wood, \$5 to \$7 per cord; barley, 5 to 6 cents per pound; potatoes, 6 to 8 cents per pound; butcher's meat (beef), at wholesale, 6 to 7 cents per pound, and at retail, 8 to 15 cents. The total valuation of real and personal property in the county for 1864 was \$1,518,010.

Humboldt County has 150,000 acres of tillable land, which, by irrigation, might be doubled. It has 640,000 acres of grazing land. Blue-joint, clover, and other nutritious grasses grow in great abundance on the hills. There were, in 1865, 300 acres sown with barley, producing 12,000 bushels; 5 acres with wheat produced 150 bushels, and 50 acres of potatoes yielded 10,500 bushels. The average prices were: wheat, \$6 per bushel, barley, \$5, and potatoes, \$3. Sulphur is found in large quantities in a pure state. Salt springs and salt deposits are also to be found in various parts of the county. Limestone is one of the principal rocks in this section of the State. In 1865, to September 30, there had been shipped from the county \$50,000 worth of assayed silver bullion, and \$50,000 worth of crude or un-assayed bullion. There were 352 men employed in the quartz-mills. The price of wood for fuel was \$18 per cord. The Humboldt canal, in course of construction on the Humboldt River, is to be 90 miles long, 15 feet wide, and 3 feet deep. The dam and 30 miles of the canal were completed in 1865, at a cost of less than \$1,000 per mile. It is calculated that the canal, during the driest portion of the year, will furnish power sufficient for 40 quartz-mills of 20 stamps each.

Lander County has nineteen quartz-mills, 16 of them had steam, and 3 water-power; the number of stamps in the mills was 163, and 1,000 men were employed in the mines. There were also 10 steam-hoisting works. The average cost of milling ores was \$75 per ton. There were 36,000 tons of ore extracted in 1865. One salt marsh in the county was being successfully worked. Limestone of a good quality is found in Lander. The price of wood was from \$7 to \$10 per cord. The county contained 28,895 acres of hay land; 8,227 acres of land under culture, and 44,723 acres of woodland. There had been erected in the county 5 steam saw-mills, which were in operation. It had 3,793 cattle, 669 sheep, and 165 mules.

Nye County has 50,000 acres tillable land, and one-half of its territory is grazing land. It had in 1865, 2 saw-mills in operation, one ready to start, and 4 in course of construction, besides numerous mills driven by horse-power. Pure sulphur abounds in the county; anthracite has been found; entire mountains consist of limestone formation, from which an excellent lime has been burned; stone, suitable for building purposes, is also found; immense beds of salt, some covering an area of over 50 square miles, exist in the county. Nye had 1,000 work oxen, and 1,000 other cattle. There were 4 quartz-mills in the county, with 38 stamps and 500 men employed in the mines. The total cost of erecting the 4 mills was \$204,000. One-fifth of the entire county is

metaliferous land, and \$100,000 worth of ore has been extracted from its mines.

Lyon County had in 1865, 600 acres of land under culture, which might, with irrigation, be increased to 6,000 acres, and 7,000 acres of hay and agricultural land that might be increased to 10,500 acres. There were in the county 7 toll roads, with a total length of 93 miles, and one road, from Dayton to Austin, was in course of construction. Coal has been found in Lyon. It had 600 work-oxen, 400 other cattle and 1,200 horses. One large foundry had been built, containing 7 lathes, 1 iron drill-press, 7 vice-benches, 2 forges, and a smelter, consuming 33,000 pounds of stone-coal per month. This foundry employed 60 hands. There were in the county 34 quartz-mills, in 21 of which steam, and in 9 water was the motive power. The horse-power of the engines in these mills was 940, and the number of stamps, 568, with a crushing capacity of 6,375 tons. There were 1,815 cords of wood consumed per day in 28 mills. The number of pans used in the 34 mills was 422, and the number of men employed in the same, 325. The California Telegraph Company had 80 miles of telegraph line in the county.

Storey County has but little agricultural, grazing, or grass land. There were in the county in 1865, 100 milch cows, 300 horses, and 300 mules. The animals slaughtered during the month of August of that year consisted of 6,500 cattle, 1,650 sheep, and 75 swine. There were in the county 10 breweries and 2 manufactories of cider, syrup, essences, etc. The proceeds from the mines in Storey, during the first three months of the fiscal year 1865, were as follows: Whole number of tons of ore worked paying over \$20 per ton, 257,728; gross yield from same, \$9,316,083.54; average yield per ton, \$36.14; whole number of tons of ore sold, 18,577; amount realized from sales of same, \$123,322.04; average price of same per ton, \$663. Six tons of ore were shipped out of the State, yielding \$500 per ton, and thus making a gross yield of \$3,000. There were 4 arastra mills in the county, worked by water-power, and containing 13 arastras, with a capacity for reducing one ton and a third per day per arastra. Storey had 36 quartz-mills—34 wet, and 2 dry crushing; horse-power of engines, 1,510; number of stamps, 623; crushing capacity, 850.

In Washoe County, several large ditches had been constructed—the Denter Ditch, with a width of 5 feet at the bottom, 7 feet at the top, and a depth of 2 feet, constructed at a cost of \$15,000, and the Consolidated Company Ditch, $3\frac{1}{2}$ miles long, 10 feet wide at the bottom, 14 at the top, and 3 feet in depth. The price of hay was \$25 per ton at the place of production; wheat raised, 23 tons; barley, 100 tons; oats, 125 tons; potatoes, 1,478 tons; other vegetables, 898 tons; saw-mills, from 12 to 18 in number, cutting on an average about 30,000,000 feet of lumber per annum, one-tenth of which was used in the county for building and fencing purposes, and the remainder taken to Storey County; the receipts from cord-wood were \$75,000 per month, employing 200 men and 500 draft animals in cutting and transporting it to market. The number of cattle was 2,249; horses, 840; sheep, 1,855. There were

in the county 10 schools in operation; 10 quartz-mills—9 with steam, and 1 with water-power, and having 60 stamps.

THE SILVER MINES OF NEVADA.—The four principal mining centers of Nevada are the Washoe, (Virginia and Gold Hill districts,) the Austin, (Reese River district,) the Aurora, (Esmeralda district,) and the Unionville, (Humboldt district.) Of these, the principal are the Washoe or Virginia district, including Gold Hill, and the Austin or Reese River district, the former being the great mining center of Western, and the latter of Central Nevada.

The Virginia mining district is established about the famous Comstock Lode, or Ledge, as a center, and includes all the mines in the eastern slope of Mount Davidson and those of Cedar Hill, an adjoining elevation to the north. The Comstock Lode constitutes the main wealth of this district, and consists of a great ledge or vein of ore, which was just within the upper line of the city of Virginia, along the mountain side, three miles in length, fifty to six hundred feet in width, and of a depth as yet unexplored and not likely ever to be ascertained.

In 1852, H. B. and E. A. Grosh, sons of A. B. Grosh, a Universalist clergyman of considerable note, and editor of a Universalist paper at Utica, New York, and who were both educated metallurgists, came to the then Territory of Nevada, and in the same or the following year engaged in placer mining, in Gold Canon, near the site of Silver City, when they first discovered silver ore in a quartz vein on which they had a location. The vein was probably the one now owned by the Kossuth Gold and Silver Mining Company. Shortly after this discovery, and in the same year, one of the brothers accidentally wounded himself with a pick, from the effects of which he soon died, and the other brother went to California and died there early in 1858. This probably prevented the valuable discovery the brothers had made from becoming known till some time after the decease of both.

In the mean time, placer mining was carried on to a considerable extent in various localities in Nevada, principally in Gold Canon. In 1857, Joe Kirby, and others, commenced placer mining in the Six-mile Canon, about half a mile below the site of the present works of the Ophir Company. They worked at intervals, with indifferent success, until 1859. On the 22d of February, 1858, the first quartz claim was located in the Virginia mining district, in the "Virginia Croppings," by James Finney, generally known as "Old Virginia," from whom the city of Virginia and the "croppings" have taken their name. This may be considered the first location of the famous Comstock Lode, or Ledge.

The discovery of rich deposits of silver ore was not made until June, 1859, when Peter O'Reilly and Patrick McLaughlin, while engaged in gold-washing in what is now the ground of the Ophir Mining Company, and near the south line of the Mexican Company's claim, discovered a rich vein of sulphuret of silver in an excavation made for the purpose of collecting water to use in their rockers in washing the gold. This discovery being on ground claimed at the time by Kirby and others, Comstock was employed to purchase their claim, in consequence of

which Comstock's name has been given to this great lode, and those entitled to it deprived of the honor of its discovery.

From this grand discovery resulted the miraculous growth of Nevada. Immediately the lode was claimed for miles; an unparalleled excitement followed, and miners and capitalists came in great numbers to reap a share of the reputed wealth. The few hardy prospectors exploring the mountains for hidden wealth soon counted their neighbors by thousands, soon walked along miles of busy streets called into existence by the throng of adventurers, and soon prospectors were ransacking almost every part of the at present State of Nevada in search of silver lodes.

The Surveyor-General of Nevada, in his annual report for 1865, gives a tabular statement of the claims on the Comstock Lode of forty-six companies, and of the extent and the working of each claim, showing that a little more than three and a half miles is the extent to which the lode has been partially developed. The companies have excavated about twenty-eight miles of tunnels and drafts, and nearly six miles in shafts, risings, and inclines, exclusive of slopes on ore chimneys, which will amount at least to as much more, giving a total of sixty-seven or sixty-eight miles.

The longest tunnel penetrating the Comstock Lode is the Latrobe, 3,200 feet in length in a straight line, and having various branches besides. It was commenced in February, 1861, and is still being extended further and further.

The companies operating the lode have forty-four hoisting and pumping engines, which will probably average between thirty and forty horsepower. These hoisting and pumping engines are of prime necessity to the working of every mine. Water flows freely into all the deep tunnels or shafts, from the bottom of which the water as well as the great object of pursuit, the ore, must be drawn up.

The mines of the Comstock Lode employ seventy-seven quartz-mills, twenty-two of which are directly connected with particular mines, and fifty-five are what are called custom mills. Fifty-four of these mills are operated by steam-power, twelve by water, and eleven by both steam and water. These mills have an aggregate capacity for crushing 1,842 tons daily. They are located in the four counties of Washoe, Storey, Lyon, and Ormsby; in the last named is Carson City, the capital of the State. Only about half the mills are in Storey County, in which are situated the city of Virginia and the Comstock Lode. Some of the ore from the mines is transported fourteen miles in wagons to the mills where it is to be crushed.

There is consumed annually by these mining companies 22,265 cords of wood, at a cost of not far from sixteen dollars per cord, and a total cost of more than one-third of a million of dollars. They use about 15,504,120 feet, board measure, of timber and lumber, all of which must be transported a long distance in wagons, at a cost of about forty dollars per thousand feet, or a total cost of nearly two-thirds of a million of dollars. Thus, for wood and timber, the companies expend annually a million of dollars.

The yield of the Comstock Lode in 1865 was nearly \$13,500,000. The lode has been, and is, the principal source of revenue to the State; five-sixths of the taxable property of Nevada being within the five counties of Storey, Washoe, Lyon, Ormsby, and Douglas, which depend for nearly all their business, directly or indirectly, upon the Comstock Lode.

This lode has proved itself one of the richest, if not the richest, deposit of silver in the world. That it is a true fissure vein, extending down into the crust of the earth far beyond depths possible to be explored by human agency, appears to be the opinion of those most competent to decide in such matters. The Comstock Lode is thought more nearly to resemble the great vein of Guanaxuato—the Veta Madre, the mother vein or champion lode, as the Church miners would call it—than any other of modern history.

Very high authority pronounces the Comstock Lode a true fissure vein, the bottom of which can never be reached by man. Arguing from analogy of similar veins at Potosi, in Bolivia; Cerro Parco, in Peru; the Veta Madre at Guanaxuato, and the wide lode at Zacatecas, its great mineral wealth will never be exhausted. Those four great fissure deposits have been worked for more than two centuries, and they have produced more than twenty-five hundred millions of dollars. The mines of Potosi, though opened three hundred and twenty years ago, and though they have yielded more than one thousand millions of dollars, are not yet exhausted, and have never, even for a single week, ceased to pour out their great streams of treasure.

But Potosi, with all its magnificent mineral wealth, never produced more than ten million dollars a year, while the Comstock Lode produces thirteen millions. Mexico, the great fountain of silver, heretofore considered the richest and most extensive argentiferous region of the world, during its most flourishing period—from 1795 to 1810—produced on an average only twenty-two million dollars a year from a thousand productive mines. The Comstock Lode, though a very late discovery, stands far above any of the other silver lodes of ancient or modern times. The yield now surpasses the entire silver production of South America, or of any other country, save Mexico; and with time, experience, and the best of management, may be made to rival that.

Work in earnest commenced upon the Comstock Lode about 1861, and its total yield has been probably about forty-five million dollars, including the following sums exported as the production of a few leading mines, up to the 1st of September, 1865:

Gould & Curry.....	\$14,000,000
Ophir.....	7,000,000
Savage.....	8,647,764
Imperial.....	2,500,000
Yellow Jacket.....	1,891,916
Belcher.....	1,462,005
Total for six companies.....	\$30,501,685

It has been estimated that five or six other companies have taken out more than a hundred thousand dollars each, and that about two dozen other companies have taken out small sums. It is true that many of the companies formed and at work upon the Comstock Lode have failed to pay dividends, and some even to meet current expenses, but the success of others has far exceeded the most sanguine expectations.

Of the successful and enterprising companies, the Gould & Curry is the most noted. Its claim covers twelve hundred feet in length upon the surface of the lode. It has mined down six hundred to eight hundred feet, and its excavations amount to five million cubic feet. It has used more lumber in bracing and staying up the sides of its excavations, and for other underground purposes, than is contained in all the buildings in the city of Virginia, with its ten or fifteen thousand inhabitants.

The mill of the Gould & Curry cost about a million dollars, and runs eighty stamps. The stockholders have paid in a hundred and eighty thousand dollars, and received back four millions in dividends. In a single year this mine yielded four and a half million dollars in bullion, with a profit of a million of dollars. But the company had quite exhausted the ore in its mine at the depth it had penetrated, and was, in 1865, sinking a shaft to the depth of a thousand feet, with fine prospects of finding richer and more abundant ore at that depth. Other companies were also preparing to dig to a like depth on witnessing the result of the Gould & Curry enterprise.

The Ophir and the Savage are also among the successful companies operating in the Comstock Lode. One account states that the former has taken out of its mine twelve million dollars, and the latter six million in bullion.

Among the successful companies working claims on that part of the Comstock Lode on Gold Hill, are the Empire Company and the Yellow Jacket. The former company has never required any money to be paid in by its stockholders, and only in a single month, in its operations for several years, has it failed to meet its current expenses. Its stock has at times rated at very high figures in the market, higher, perhaps, than that of any other company in the same vicinity.

The Yellow Jacket is also a very successful and popular company. It has paid back its stockholders their full investment of three hundred thousand dollars, and thirty-five thousand dollars over and above their assessments.

The average depth to which the forty-six mines in the Comstock Lode have been worked is estimated at five hundred feet. These depths are so great that the pumping of the water and the hoisting of the ore are the two main sources of expense, which will continue to increase with the increased depth. Hence, the project of sinking shafts to a much greater depth must be abandoned, unless richer ore is found or cheaper machinery can be used.

The cost of the hoisting and pumping apparatus at the Comstock Mines, in 1865, was estimated at \$1,500,000, and the annual expense of additions and repairs at \$500,000.

The quantity of ore hoisted during the quarter ending September 30, 1865, was seventy-one thousand tons, and four times as much—two hundred and eighty-four thousand tons—is about the weight of ore that must be hoisted annually, with a probable increase as the expense of extraction and reduction falls, and the poorer ores offer a profit to the mine-owner. The quantity of water that is pumped from the mines can not be ascertained, as no record is kept. Nearly every mine of note has its pump, which usually stands idle part of the day; in the deeper and more extensive works the pumps work night and day. The Best & Belcher and Hale & Noreron mines, each, during portions of the summer of 1865, pumped fifteen thousand gallons of water per hour. The Gould & Curry pump has a capacity of twenty-five thousand gallons per hour.

For a long time the works of the Ophir and the Mexican mines were flooded in spite of all the efforts of powerful pumps. Such has been the case with other mines. It has been estimated that at eighteen hundred feet in depth, the quantity of water in the Comstock Lode will be four hundred and eighty thousand gallons per hour, and that the cost of pumping it up would be at length four million dollars, of which expense about one-fifth would be interest on the cost of machinery.

The present expense of draining the Comstock Lode is estimated at four hundred thousand dollars per year.

In 1864, nearly sixteen million feet, board measure, of timber, at a cost of nearly six hundred and forty thousand dollars, were used in the Comstock Mines, and in 1866 there were probably fifty million feet, board measure, within the same.

The following extracts from a letter written some years ago, by a prominent officer of the General Government, give an interesting description of the timbering of these mines:

"Having been called by business to Virginia City, about two weeks ago, I took the opportunity of visiting the Mexican, or, as it is frequently called, the Spanish Mine. We went in through the tunnel two hundred and fifty feet; then descended by a single flight of spiral steps ninety-two feet; then down other steps till we attained a depth of one hundred and seventy feet below the surface, passing close to and in sight of the Ophir timbers.

"The timbering in these mines is a wonder. In the process a shaft is sunk, and the timbers put in as the quartz is removed, working internally and upward. To go deeper, another shaft is sunk, and timbers built up till they connect with the former timbers. In this way the Comstock Lode is opened and timbered for three hundred and seventy-five feet or more of its length, viz.: the Central, lying south of the Ophir twenty-five feet; all that part of Ophir lying south of the Mexican, two hundred feet; the Mexican, at the depth of one hundred and seventy feet, its entire length one hundred feet; and fifty feet of that part of the Ophir lying south of the Mexican. In the Mexican Mine, the quartz will be taken out and timber carried up to within thirty feet of the surface. In one portion of the mine the timbers are now

up fifty feet. These timbers are eleven and a half to twelve and a half inches square, and six feet and five inches long. Each stick costs nine dollars, and the carpenter's work a dollar and a half to two dollars. In some places, the enormous pressure has caused the timbers to crack and cut into each other. At the depth of one hundred and seventy feet, the ledge is forty-six feet wide. Two stations extended across the mine, and to the height of fifty feet, being three rows of upright timbers, cost twelve thousand dollars. The walling up of the casing rock on each side of the ledge is substantially done, and is a costly part of the timbering. In several places we saw the peculiar timbers left by the Mexicans when they worked the mine in 1859.

"Soon after entering the tunnel we were obliged to take lights. At the end of the tunnel we found a number of drifts running off in various directions. We were obliged presently to step over a deep shaft to get out of the way of a horse being brought in to work a whim, or hoisting apparatus. While the horse was passing, the hand-car came thundering along on the iron rails in the tunnel, and shot past us into the gloom of one of the drifts. Without stopping to explore the drifts to any great extent, we descended the spiral steps. Here the huge timbers rose above us into confused indistinctness, and extended below and on all sides of us. In wandering through the mine, the sensations are peculiar, produced by this vast frame-work of timbers under ground, and the rumblings occasionally startle the ear from invisible places in the darkness, caused by pouring quartz down a plank incline into a heap on a plank floor, to be hoisted thence, and by emptying it into the car through a kind of hopper; and then on the bottom of the mine, and on floors laid at various elevations among the timbers, workmen were here and there visible with their lights, appearing and disappearing as we or they changed positions. There was a number of shafts, whose mysterious depths the eye could not penetrate.

"The richest rock is found in 'pockets,' (small deposits,) or in veins from an inch to several inches in width. In some places the 'pay rock' is thus so concentrated that the adjoining quartz for a considerable space is waste rock."

A late visitor to these mines, Mr. Samuel Bowles, gives, in his recent book, "Across the Continent," the following graphic account of his descent into the Gould & Curry mine, in June, 1865:

"The newer mines, whose shafts are but fifty or one hundred feet, are descended by a simple rope and bucket, worked by a common hand windlass; older and deeper ones, by the same contrivance, with steam power. If, as is often the case, the vein runs at an angle, or is reached below in that way, a little car runs down a steep track, held and drawn by a heavy rope and steam-engine; while other shafts are provided with ladders, winding around or set perpendicularly up and down. The latest, and safest, and readiest contrivance for descending a perpendicular shaft, is a cage or box, let down by a rope with steam-power, but provided with sharp, opening arms that, in case the rope breaks, will catch into the walls with such power as to hold the cage and its load.

Its certainty was proven to us by cutting the rope with an ax, when the cage sent out its fingers and clung midway in its passage. We reached the insides of other mines by long tunnels, running into the veins from the surface, far down the hill-sides on which they were located. The deepest worked mine on the Pacific coast is in Amador County, California, and is eight hundred feet down; but some of those in Nevada are fast approaching this depth, and the latter have the most extensive chambers below the surface of any in the country. The Gould & Curry Mine, for instance, has several miles length of tunnels and shafts, and it is a full half day's journey to travel through it entirely.

"We entered this mine through a long tunnel that strikes the vein several hundred feet below the surface. There were half a dozen of us in the procession, each with a lighted candle, which would go out under the outgoing draft, and so we soon contented ourselves with groping along in the dim, cavernous light. It seemed a very long journey, and the nerves had to brace themselves. The most stolid person, stranger to such experience, will hardly fail to find his heart beating a little quicker as he goes into these far-away, narrow recesses in the bowels of the earth. I never failed to remember the principle that 'nature abhors a vacuum,' and to wonder if she wouldn't take the present occasion to close this little one that I was in. At last we reached the scenes of the ore and the work after it; and among these we clambered and wandered about, down shafts to this or that level, and then out on side tunnels through the vein in both directions; up again by narrow, pokerish ladders to a higher set of chambers, in and out, up and down, till we were lost in an amazing confusion. Here was, indeed, a city of streets and a population far under the surface of the earth. Many of the chambers or streets were deserted; in others, we found little *coteries* of miners, picking away at the hard rock, and loading up cars of the ore that were sent out by the tunnels and up the shafts to the surface above. Here, too, was a building in a wide hall under ground, and a steam engine to help on the work. Some of the chambers had closed in after being worked out of ore; others have been filled to prevent caving in and causing great disaster overhead; but many of the open passages were stayed or braced open still with huge frame-work of timber. More lumber, indeed, as remarked before, is used for this purpose in this single mine than has been put into all the buildings of Virginia City itself, with its ten thousand or fifteen thousand inhabitants. And in many of the passages, such is the outward pressure into the vacuum, that these timbers, as big as a man's body, are bent and splintered almost in two. Great pine sticks, eighteen inches square, were thus bent like a bow, or yawned with gaping splinters; and the spaces left in some places for us to go through were in this way reduced so small that we almost had to crawl to get along.

"Do you wonder that we began to grow weary and thought we had seen enough? Besides, the mine was oppressively hot and close; the mercury was up to one hundred degrees, and more, and the sweat poured from us like water. One of our party grew faint and feeble, and we voted to take the nearest way out. This happened to be the

most perilous and trying; but we did not realize that, and our miner guides unsensitive from experience, did not think of it; so he started us into a long shaft, running straight up and down for several hundred feet, dark and damp as night, with no breaks or bending places, and set us going, one after another, up a perpendicular ladder fastened to its side. We only took in a sense of the thing after we had got started; each must carry his lighted candle, hold on, and creep ahead; a single misstep by any one, the fainting of our invalid, or of any of us, all weary and unstrung, would not only have plunged that one headlong down the long, fatal flight, to become a very Mantilinean cold body at the bottom, but would have swept every body below him on the ladder, like a row of bricks, to the same destination and destruction. There was, it may well be believed, a stern summoning of all remaining strength and nerves, a close, firm grip on the rounds of the ladder, a silent, grave procession, much and rapid thought, and a very long breath, and a very fervent, if voiceless prayer, when we got to the daylight and the top."

The average yield of the Comstock Lode ore is fifty dollars per ton. The cost of reducing the ore was, in 1865, about twenty-five dollars per ton, though the Gould & Curry Company had brought it down to eighteen dollars. It was thought probable that this cost might be reduced, and that ores yielding only ten or fifteen dollars a ton might be worked with a profit. This would enable the companies to avail themselves of the poorer ores, which they laid by without working while prices of milling were high.

Next in importance to the Virginia are the Austin or Reese River Mines in Central Nevada. The veins of silver ore, which are generally comparatively small in size, but rich in production, lie thickly scattered on the hill-sides and over the mountains in and around Austin. The main belt has been successfully traced for five miles in length and one in width. Some fifty veins were being successfully worked in 1865, and it was expected that as many more would soon be opened. There is much water found in these veins, and their drainage is very laborious. Great labor is also required in the reduction of the ores, and in separating the gold and silver from the sulphurets of other metals, with which they are found combined.

There are in Austin and its immediate vicinity five or six quartz-mills, working about seventy-five stamps. But in that county, Lander, there are, or were in 1865, some twenty mills, with 163 stamps, and a thousand men employed in the mines.

The ore from these mines yields from one hundred to four hundred dollars per ton. But the cost of its reduction is much greater than that of the Virginia ores, being from seventy-five to one hundred dollars a ton. Ores which yield only a hundred dollars a ton can not be profitably worked, and are left until the cost of milling shall become less. One mine near Austin produces ore that yields one hundred and eighty dollars per ton, and another one hundred and fifty, and the cost of getting out and working the latter is said to be but fifty dollars per ton, leaving a clear margin for one hundred dollars net profit.

As in other parts of the State, so in central Nevada, there are constant discoveries of rich ores being made; new mines are opened, new mills erected, and mining villages in new localities spring into existence. It is evident that the mineral wealth of Nevada has as yet only begun to be developed. Though the bullion, as perfected at the Nevada mills, has the appearance of pure silver, yet about one-third of it is really gold. The separation of the two metals is made after the bullion reaches the market in England, or at the United States mints.

The average monthly production of the four principal mining centers of Nevada, for the first nine months of the year 1865, was estimated as follows:

Washoe (Virginia) and Gold Hill districts.....	\$1,236,275
Austin (Reese River District).....	75,000
Aurora (Esmeralda district).....	19,000
Hunnville (Humboldt district).....	1,282

CITIES AND TOWNS.—As the capitals of the principal mining centers in the State, Virginia City and Austin are, of course, the largest towns in Nevada, and the centers of its principal trade, business, and population. The former is in Storey County, and in the Washoe mining district, and the latter in Lander County, and in the Reese River mining district. Virginia, the present State capital, is a thrifty, enterprising, well-built town, containing over twenty thousand inhabitants. The adjoining town or extension, called Gold Hill, has an additional population of about six thousand. Virginia is described by tourists as having a very picturesque site, lying above the canon or ravine, and spread along the mountain side at the height of about six thousand feet, while above rises a peak fifteen hundred feet higher. The surrounding hills, valleys, and plains afford a varied and romantic scenery. Virginia has three daily papers, and Gold Hill one.

Austin is the easternmost and newest large mining town in the central or Reese River mining district. It is 180 miles east of Virginia. It is situated on the hill-sides of a close canon, running up from the Reese River Valley. Its population is four thousand to five thousand, and, notwithstanding its huddled and grotesque appearance on the hill-sides, in enterprise, wealth, taste, and luxury, it outstrips many an eastern city of much larger pretensions.

The other principal towns in Nevada are Carson City, the late State capital; Silver City, in Lynn County; Washoe City and Ophir, in Washoe County; Star City, Hunnville, and Humboldt, in Humboldt County; Dayton, in Lynn County; Genoa, in Douglas County, and Aurora, in Esmeralda County. Aurora, situated in the rich mining district of Esmeralda, has a population of four thousand to five thousand. It is 120 miles south of Virginia. Carson City, the former State capital, is in Ormsby County, and is situated in a valley at the base of the eastern slope of the Sierras. It contains about three thousand inhabitants.

THE WASHOE VALLEY.—There are several valleys in Washoe County, which seem to be the nucleus of a system or chain of lakes that once

extended through the greater portion of the county. These valleys bear the following names, commencing on the south side of the county: Washoe, Pleasant, Steamboat, Truckee, and Minnemucca.

Of these valleys, Washoe is probably the most beautiful and productive, as it is the most noted. It has an elliptical shape, and is eight miles long by four wide. It was evidently once a lake as well as the other valleys in the same vicinity. The whole area of the Washoe Valley can be seen from one central stand-point, exhibiting to view five thousand inclosed acres, dotted here and there with dwellings, from the most superb and beautiful that would be a credit to any city upon the Pacific coast, to the little white cottages peeping out cosily from a grove of majestic pines; the scenery on all sides beautiful and adorned by surrounding fields of golden grain, gardens, and shrubbery, all lying close by the side of the towering Sierras, whose dark forests, mingling with the clouds of heaven, convert almost one-half of the day into the softness of twilight; nestling in the southern center is beheld a placid and beautiful lake covering several square miles, whose limpid waters reflect, as in a mirror, the surrounding scenery. The whole go to make up a landscape that, for beauty, loveliness, and sublimity, is seldom excelled.

As the other valleys present the same general outlines as the Washoe, it is unnecessary to describe them in detail.

RIVERS.—The great intra-mountain basin, formed by the Rocky Mountains on the east, and the Sierra Nevada on the west, and of which Nevada occupies a large portion, is comparatively waterless, and hence has sometimes been called the "Great Desert Basin." But it is by no means a desert in the common acceptance of the term. Ranges of mountains pervade it from north to south, averaging at least one to every fifty miles, with intervening valleys, in which water and verdure are found. Rains are rare, springs seldom found, and the streams formed by the snows melting on the mountains are soon absorbed by the thirsty earth. Such streams usually lessen in size after they reach the plains below, and end in small lakes or sink quietly into the ground.

Nevada has quite a number of small lakes and streams; but its agricultural lands generally need irrigation to make them very productive. Its principal rivers are the Humboldt, the Carson, and the Reese Rivers. The Humboldt River, rising in the western slope of the Humboldt Mountains, which run nearly north and south, is the largest in the State, and after running west and south some four or five hundred miles, ends its course in a lagoon or small lake, twenty miles long and eight or ten broad in its widest part, in latitude $40^{\circ} 10'$ and longitude $118^{\circ} 40'$, and known as Humboldt Lake. Carson River rises in the Sierra Nevada, and has a similar terminus in Carson Lake, within sight of the peaks that gave it birth. Reese River, that has given name to the productive silver-mining district in Central Nevada, is a small sluggish stream ending also in a small lake or lagoon. It is remarkable that from the great intra-mountain basin in which Nevada is located, there is no outlet to the ocean.

NEBRASKA.

NEBRASKA, which was organized as a Territory in 1854, has been reduced in its area from time to time, till it is now included between the 40th and 43d parallels of north latitude, and the 25th and 27th degrees of longitude west from Washington. It is bounded on the north by the Territory of Dakota, on the east by the States of Iowa and Missouri, on the south by the State of Kansas, and on the west by Colorado and Dakota. The following are its present boundary lines: From the intersection of the 43d parallel of latitude with the 27th degree of longitude, the northern boundary line runs due east on said 43d parallel of latitude till it strikes the Kaha Paha, or Turtle Hill River; thence down that river to its junction with the Niobrara, Running Water, or Rapid River; thence down the Niobrara till it joins the Missouri River; thence down the Missouri to its junction with the Big Sioux River; thence southwardly the boundary line of Nebraska follows the Missouri River to the 40th parallel of latitude; thence it runs west on that parallel till it strikes the 25th degree of longitude west from Washington; thence it follows that meridian north to the 41st parallel of latitude; then, turning west, it runs on that parallel to the 27th degree of longitude west from Washington, and then north on that meridian to its intersection with the 43d parallel of north latitude.

COUNTIES.—There were twenty-six counties in Nebraska in 1866. We annex a list of the counties, the population of each as given in the census of 1860, and the votes polled in each for and against the proposed State Constitution at an election held June 2d, 1866:

COUNTIES.	POP.	STATE CONSTITUTION.	
		For.	Against.
Burt.....	888	222	42
Buffalo.....	114	1	41
Cass.....	8,869	288	480
Cedar.....	246	12	89
Cuming.....	67	81	41
Dakota.....	819	108	82
Dixon.....	247	84	36
Dodge.....	809	96	45
Douglas.....	4,828	419	572
Gage.....	421	96	61
Hall.....	116	2	29
Johnson.....	528	108	69
Jones.....	122	82	18
Kearney.....	474	21	7
Lancaster.....	168	95	52
Lincoln.....		80	20
Merriek.....	109	16	8
Nemaha.....	3,189	346	486

COUNTIES.	POP.	STATE CONSTITUTION.	
		For.	Against.
Otoe.....	4,211	432	870
Pawnee.....	882	233	81
Platte.....	728	123	55
Richardson.....	2,835	503	378
Saline.....	89	5	54
Sarpy.....	1,201	109	231
Seward.....		23	24
Washington.....	1,240	404	89
Nebraska Volunteer Cavalry.....		134	34
Total.....		3,938	3,838

FACE OF THE COUNTRY.—The greater part of Nebraska seems to consist of a high prairie land. A chain of highlands called the Black Hills runs from near the Platte River, in a north-east direction, to the Missouri River, in Dakota, which they approach in about 102° west longitude, dividing the waters running into the Yellowstone from those flowing into the Missouri, below its great south-eastern bend. A recent authority, writing on the spot, thus speaks of Nebraska: "The soil, for a space varying from fifty to one hundred miles west of the Missouri River, is nearly identical with that of Missouri and Iowa. The highlands are open prairie grounds, covered with grasses; the river bottom, a deep, rich loam, shaded by dense forest trees. From this district to about the mouth of the Running Water River, is one boundless expanse of rolling prairie, so largely intermingled with sand as to be unfit for agriculture, but carpeted with succulent grasses. A third district, extending in a belt many miles east and west of the Mandan village in Dakota, on the most northerly bend of the Missouri, and southward across the southern boundary of Nebraska, is a formation of marl and earthy limestone, which can not be otherwise than very productive." Coal has been found in the north-western counties of Missouri, and it is probable may be found in the south-east portion of Nebraska. The limestone formation of Missouri and Iowa extends over the first district of Nebraska, described in the passage just quoted. Beyond that district the formation is chiefly sandstone. Coal has been seen cropping out in various places along the Nebraska River, in the south-west part of Nebraska.

The first district is the only really good agricultural region at present. It is a rich loam, finely timbered and watered. The second is strictly pastoral. The third has soil, but is destitute of timber, and very sparsely supplied with springs.

RIVERS.—Nebraska is bounded on the east by the Missouri, one of the most important rivers on the globe, which takes its rise in the western part of Montana, among the declivities of the Rocky Mountains; runs north-east for about 1,000 miles, to 43° 20' north latitude, receiving a large number of affluents from the north, and the Yellowstone, nearly 1,000 miles long, with a multitude of sub-tributaries from the south; then, turning to the south-east, pursues its course for 1,800 miles further, having its flood of waters swelled by the influx of a con-

stant succession of streams, among which the principal are in the order named: the Little Missouri, the Mankizilah, or Lower White Earth, the Niobrarah and its affluent the Keha Paha, and the Nebraska, or Platte River. The most important of the northern tributaries, beginning at the west, are the Gallatin, Madison, and Jefferson Rivers, (whose confluence forms the main stream,) followed by the Dearborn, Maria's, Milk, Upper White Earth, and numerous small streams. The Platte or Nebraska, which gives Nebraska its name, rises in two branches, respectively, in the north and south parks of the Rocky Mountains in Colorado, and flows east through the south part of Nebraska. The El Paso steamer ascended the Nebraska in the spring of 1853 to the distance of 400 or 500 miles, but this river can only be navigated at the highest water, and even then the navigation is difficult. As its name imports, it is broad and shallow, and during the dry season is, in parts, only a series of pools. The spring freshets in the Missouri usually occur about the first of June.

OBJECTS OF INTEREST TO TOURISTS.—Near 42° north latitude, and 103° west longitude, on the head-waters of the Lower White Earth River, or Mankizilah, and lying partly in Nebraska and partly in Dakota, between Fort Laramie and the Missouri, is a remarkable tract or valley, about 30 miles wide and perhaps 80 or 90 long, called *Mauvais Terres*, or "bad lands," from its thin, sterile soil, which is covered with only a very scanty growth of grass. The appearance of this region presents a most striking contrast to that of the adjacent country. "From the uniform, monotonous, and open prairies, the traveler suddenly descends 100 or 200 feet into a valley that looks as if it had sunk away from the surrounding world, leaving standing all over it thousands of abrupt, irregular, prismatic and columnar masses, frequently capped with irregular pyramids, and stretching up to a height of from 100 to 200 feet or more. So thickly are these natural towers studded over the surface of this extraordinary region, that the traveler treads his way through deep, confined, labyrinthine passages, not unlike the narrow, irregular streets and lanes of some quaint old town of the European continent. One might almost imagine oneself approaching some magnificent city of the dead, where the labor and genius of forgotten nations had left behind them the monuments of their art and skill." In one sense, this region is truly a great "city of the dead," as it contains, in the most extraordinary profusion, the fossil skeletons of various tribes of animals now extinct, particularly of the *pachydermata*. Among others, there was found a nearly entire skeleton of the *palæotherium*, eighteen feet in length. Unhappily, its substance was too fragile to admit of removal. The bluffs, which often recede for several miles from the rivers, frequently rise from 50 to 500 feet above the bottom-lands, and present the appearance of castles, towers, domes, ramparts, terraces, etc. In the third district, described above, elevations "called *buttes* by the Canadian French, and *cerros* by the Spaniards, are profusely scattered. Here and there the traveler finds the surface varying in diameter from 100 feet to a mile, elevated from 15 to 50 feet above the surrounding surface. They are not hills or knobs,

the sides of which are more or less steep and covered with grass. Their sides are generally perpendicular, their surfaces flat, and often covered with mountain cherries and other shrubs. They have the appearance of having been suddenly elevated above the surrounding surface by some specific cause."

CLIMATE.—Though the climate of Nebraska has not been accurately ascertained, enough is known, however, for practical purposes. In Eastern Nebraska, vegetation is some weeks later than in Iowa, and in the vicinity of the mountains some weeks later still. From the city of St. Louis, traveling either northward or westward, the climate becomes colder about in the same degree—the difference of elevation, traveling west, being about equivalent in its effects to the difference of latitude traveling north. The altitude of Nebraska, considerably greater than that of the Mississippi Valley, secures to it a dry, pure, salubrious atmosphere, free from fogs and humidity. The prevalent diseases are mostly malarious, and become less frequent as the country becomes cultivated. The climate is remarkable for the number of bright, clear, sunny days throughout the year. Rain is not abundant, the summer and fall being comparatively dry. The extreme heat is 100°. This is tempered by the prairie breezes, and the nights are always cool. The winters are usually mild and open, with little snow. The extreme cold is from 10° to 15° below zero in moderate winters, and from 20° to 30° below in severe ones. High winds prevail in the spring, and at times throughout the year, sweeping unobstructed over the open plains.

SOIL AND TIMBER.—We will briefly recapitulate the best soils, so far as ascertained. Near the south-east extremity the soil is often fourteen feet deep. For about 250 miles west of the Missouri River, says Hale, the prairie through which the Nebraska passes is very rich and admirably adapted to cultivation; and the whole "divide" for the distance named, between the Kansas and Nebraska, is a soil easy to till and yielding heavy crops. Much of the prairie region, where untillable, is yet covered with rich pastures. Deficiency of timber is the great want of Nebraska, yet there are many well-timbered districts. There are dense forests of cotton-wood on the Missouri bottoms, from the mouth of the Nebraska to Minnesota, and on the bluffs and highlands bordering the Missouri River large tracts of timber, besides countless groves of oak, black-walnut, lime, slippery-elm, ash, etc. The Nebraska Valley is stated to be densely wooded for many miles on each side, to a distance of more than 100 miles above its mouth, and the valleys of the rivers and streams between it and the Lower White Earth are sufficiently well timbered for dense settlement.

Throughout the fertile region above described, wheat, corn, oats, and other cereals, sorghum, root crops, and all culinary vegetables, give a large yield. Sweet-potatoes are raised below latitude 42°. The native fruits are plums, grapes, raspberries, strawberries, gooseberries, etc. The winters are too severe for peaches, but the soil and climate are suitable for tobacco. The prairies furnish a boundless pasture-ground, and the grass of the valleys and the low grounds furnishes excellent hay.

ANIMALS.—This country is the paradise of the hunter and trapper. Vast herds of buffalo roam over its prairies, though now rapidly diminishing in numbers. Lewis and Clark have stated that at times the Missouri was backed up as by a dam by the multitudes of these animals crossing. The beaver in former times existed in great numbers, though the trappers are now fast thinning them out. Otters also are found. Panthers were met with by Lewis and Clark and others; also black bears, deer, elks, and wolves.

HISTORY.—The valley of the Missouri was first visited by Father Marquette, in the last half of the seventeenth century. La Salle followed him in 1681-82. Nebraska formed a part of the great grant of the Mississippi Valley to Crozard in 1712, and was the object of Law's celebrated Mississippi Scheme. This territory came into possession of the United States in 1803, as a part of the Louisiana purchase, and successively formed parts of that and the Missouri and Indian Territories. In 1804-5 an expedition, commanded by Lewis and Clark, under the direction of the United States Government, ascended the Missouri River, wintered at Fort Mandan, and the next spring crossed the Rocky Mountains to the present State of Oregon, and are believed to have been the first explorers of the interior and western parts of Nebraska. In May, 1854, the Congress of the United States erected this region into a separate Territory, reserving, however, the right to subdivide it—a right which has been frequently exercised of late, till now, instead of running through nine degrees of latitude and eighteen of longitude, as it did originally, it only covers three degrees of latitude and about two of longitude.

At the second session of the 37th Congress, in the winter of 1862-3, a bill for the admission of Nebraska as a State of the Union passed one house of Congress, but was lost in the other. The next, the 38th Congress, however, at its first session in 1863-4, passed an act to enable the people of Nebraska to form a State Constitution and State Government, with a view to admission into the Union. Delegates were accordingly elected to a Convention to prepare a State Constitution for submission to the people. The delegates so chosen met at Omaha on the 4th of July, 1864, and voted to adjourn *sine die*, without taking any steps toward the accomplishment of the object for which they had been elected.

A second Convention was called, and a Constitution framed, which was submitted to the people at an election held on the 2d of June, 1866. It was adopted by a majority of 100 in its favor, out of a total vote cast of 7,776. "An act for the admission of the State of Nebraska into the Union" was passed just at the close of the first session of the 39th Congress, but, not being signed by the President, it failed to become a law. Another bill, with the same title, originating in the Senate, was passed at the second session of the same Congress. This bill the President, on the 29th of January, 1867, returned to the Senate with his objections.

These objections are mainly confined to the third section of the bill, which provides that the State of Nebraska shall not be admitted into

the Union except upon the fundamental condition that, within the State, there shall be no denial of the elective franchise, or of any other right, to any person by reason of race or color, except Indians not taxed; and also upon the further fundamental condition that the Legislature of the State shall, by a solemn public act, declare the assent of said State to the said fundamental condition. The President objects that this condition was not mentioned in the original enabling act, was not sought by the people of Nebraska, has not heretofore been applied to the inhabitants of any State asking admission, and is in direct conflict with the Constitution adopted by the people, and declared in the preamble to the bill to be "republican in its form of government." It is also objected that Congress undertakes to authorize and compel the Legislature to change a Constitution adopted by the people, and ratified and confirmed by Congress in the first section of the bill. The President makes the further objection that the condition precedent in the bill is an assertion of the right of Congress to regulate the elective franchise in any State hereafter to be admitted. This he regards as a clear violation of the Federal Constitution.

Soon after the President's veto, and early in February, 1867, this second bill for the admission of Nebraska as a State of the Union was passed by Congress by a two-thirds vote in each branch, thus making it a law notwithstanding the President's veto.

Following the passage of the bill for the admission of Nebraska, the Legislature of the new State met at Omaha, the capital, and, on or about the 20th of February, 1867, ratified, or agreed to accept and conform to the conditions imposed in the act. Thus, so far as legislation is concerned, was completed the last act for the admission of Nebraska as the thirty-seventh State of the American Union.

CITIES AND TOWNS.—The capital of Nebraska is Omaha, situated on the Missouri River, opposite Council Bluffs, in Iowa, a little above the latitude of New York City. As the outlet of the Platte Valley, as the crossing point of the river for the North and South Platte routes to Denver, in Colorado, California, and Oregon, as the eastern terminus of the main trunk line of the Union Pacific Railroad, and the business center for north-eastern Nebraska, Omaha has great commercial promise. The capitol, built on a commanding eminence and a romantic site, is an elegant two-story brick edifice. The population of Omaha in 1860 was 1,950.

Nebraska City is the principal town below the Platte. It is on the beautiful site of old Fort Kearney, and commands a large share of the travel to Denver and the mines. It had in 1860 a population of 2,000.

The other principal towns in Nebraska are Plattsmouth, Brownville, Rule, Peru, Nemaha City, Falls City, Salem, Archer, Kenosha, Rock Bluff, and Wyoming, below the Platte; Bellevue, the site of the old Omaha mission; Florence, the starting point on the Missouri for the Mormon trains to Utah; and Fort Calhoun, De Soto, Corning City, Tehuma, Decatur, Omadi, Dakota, St. John's, Ponca, St. James, and St. Helena, above the Platte, on and near the Missouri; Fontanelle, on the Elk Horn, and Fremont and Columbus, in the Platte Valley.

Fort Kearney is situated on the Platte River, near the 99th degree of west longitude, and 250 miles from Atchison, Kansas. It is at the junction of the Omaha, Nebraska City, and Atchison roads for the grand central overland route to Colorado and Utah and the Pacific Territories.

MINERALS.—The southern portion of Nebraska abounds in limestone, and the counties along the Kansas line, particularly near the Big and Little Blue Rivers, present some stony surface. In many places sandstone underlies the soil, cropping out along the bluffs and ravines. Rock is seldom met with in digging wells, which range from 15 to 60 feet in depth. In Cedar County, on the Missouri, and in some other localities, there is a large deposit, a few feet below the surface, of a calcareous substance, soft and pliable, which hardens on exposure, and makes excellent lime. Alum has been found in Dixon County, and coal is obtained at various points. On Salt Creek, in Lancaster County, are several rock-salt springs. The salt impregnates the waters of the creek, and in many spots, covers the ground with a crust about the thickness of window-glass, spreading in one place to the extent of three miles in length by one in breadth.

MISCELLANEOUS.—Agricultural and pastoral pursuits will chiefly occupy the people of Nebraska, as the scarcity of fuel and of good water-power will limit manufacturing. Their traffic upon the Missouri River is already large, and promises to become immense. Three routes starting from Omaha, Plattsmouth, and Nebraska City unite at Fort Kearney, and thence follow the Platte Valley to Denver and the mountains. On all these routes the roads are excellent, wood and water convenient, and the distance less than by more southern routes. In 1860, 9,100 teams crossed the ferry at Omaha, of which about 6,000 were bound westward to the mines, California, etc.; 2,959 crossed the Loupe River, north of the Platte, by ferry; and several thousands crossed the Platte by Shinn's Ferry, east of the Loupe. Steam ferries are maintained across the Missouri at Omaha, Dakota, Bellevue, Plattsmouth, Nebraska City, and Brownsville.

The school system of Nebraska is modeled after that of Ohio. The number of schools maintained in 1860 was 121; school districts, 139; number of children entitled to attend the public schools, 7,041; and the actual attendance at the schools was 2,930. There were land-offices at Brownville, Nebraska City, Omaha, and Dakota, at which millions of acres were subject to entry. The civil code of Ohio and the criminal code of Illinois were adopted by the Territorial Legislature in 1866. Ten newspapers were then published in Nebraska. Most of the religious denominations in the United States, including Mormons, are represented.

NEW MEXICO.

NEW MEXICO is a portion of the territory acquired from Mexico by the treaties of 1848 and 1853, and extends from $31^{\circ} 20'$ to 37° of north latitude, and from 26° to 32° of longitude west from Washington, including an area of about 100,000 square miles. It is bounded on the north by Colorado, on the east by the Indian Territory and Texas, on the south by Texas and Old Mexico, and on the west by Arizona.

FACE OF THE COUNTRY, ETC.—This Territory is, for the most part, a high table-land, crossed by several ranges of mountains. The valleys of the Rio Grande and its tributaries occupy the middle part of New Mexico, and lie between and among different ranges of the Rocky Mountain chain, which crosses the Territory from north to south. The western limit of the Rio Grande Valley is the Sierra Madre Mountains, and the eastern, the Jumanes, the Del Cabello, and other ranges of the Rocky Mountains. Much of the Territory lies west of the Sierra Madre Mountains, and partakes of the general character of the Fremont Basin. (See Utah.) The mountain ranges in the east are the Guadalupe, Sacramento, Organ, (Sierra de los Organos,) Sierra Blanca, Hueca, and other divisions which diverge from the main chain of the Rocky Mountains, and pass off into Texas, forming the western boundary of the valley of the Pecos. Mount Taylor, in a south-west direction from Santa Fe, among the Sierra Madre Mountains, has been computed at 10,000 feet elevation above the valley of the Rio Grande, itself a high table-land of 6,000 feet in the north part, 4,800 feet at Albuquerque, and 3,000 feet at El Paso.

MINERALS.—It is highly probable that New Mexico abounds in the precious metals, but owing to the jealousy of the aborigines, and the unskillfulness with which, even when worked at all, they have been managed, they have not, so far as we are informed, hitherto produced abundantly; yet gold and silver are known to exist, and mines of both metals have been worked. Mines of gold have been worked in a district along the Placer Mountains, 30 miles south-west of Santa Fe. They are known as the Ortiz, Bigg, and Davenport mines. From 1832 to 1835, when mining operations were most flourishing, from \$60,000 to \$80,000 per annum was taken from them, and from their discovery to 1844, they yielded about \$300,000. The ore exists in quartz, which is easily crushed. At placers in the vicinity, gold is obtained by washing. Near the Placer Mountains, the whole soil seems to be impregnated with the precious metal. It is believed by those who have explored it, that this district would be one of the richest gold-bearing countries in the world, if science and capital were employed in its development. Silver mines, 80 miles north-east of El Paso, and near Dona Ana, are reputed to be the richest in New Mexico. Iron occurs in abundance, and gyp-

sum in large quantities has been found near Algodones; copper is plentiful, and mines of that metal were extensively worked in the vicinity of what is now Fort Webster previous to 1838, when the forays of the Indians caused their abandonment. Gold is found in the same vicinity. Some coal is found, and salt lakes, about 100 miles south-south-east of Santa Fe, have been resorted to for that necessary culinary article. Silver mines have been discovered about 18 miles east of Fort Fillmore. Lead and zinc ore are also found. Salt lakes, or *salinas* are numerous in the country, and are chiefly found between the Rio Grande and the Pecos. From these all the salt used in New Mexico is procured. Chihuahua also receives its chief supply from the same source. A train of 10 or 15 wagons, each capable of carrying 5,000 pounds of salt, goes once a year from El Paso to a salt lake district east of the Organ Mountains, for the annual supply. Mineral and warm springs, some of which possess rare medicinal virtues, are found in different parts.

RIVERS.—The Rio Grande, or River Bravo del Norte, as it was formerly called, which crosses the entire territory from north to south is the largest river of New Mexico, and drains the great valley which lies between the Sierra Madre Mountains on the west, and the Jumanes, and the Sierra Hueca or Waco Mountains on the east. The Pecos River drains the eastern slope of the same mountains, and passes off into Texas. The Puerco, a river of 200 miles in length, is the principal tributary of the Rio Grande from the west; but in the hot season it is often completely evaporated in the lower part of its course, rendering no tribute whatever to the parent stream. The Canadian River has its sources in the north-east of New Mexico, from which it runs in a south-east direction, to join the Arkansas. The Gila, which rises on the western slope of the Sierra Madre, runs almost directly west to its mouth in the Colorado. The Rio Grande has in the Territory a direct course of 500 miles, and, including windings, a course of 1,200 miles. It varies in width from 150 to 600 feet, and in dry seasons is nearly all absorbed for purposes of irrigation. The broadest arable valleys lie along this river. The Mesilla Valley lies on its west bank, beginning about ten miles north of El Paso, and it is about thirty miles in length, and from half a mile to two miles in width.

OBJECTS OF INTEREST TO TOURISTS.—Crossed as New Mexico is by lofty chains of mountains, it can not fail to possess many objects of striking interest in its scenery; but they have been hitherto imperfectly explored west of the Rio Grande. Among and beyond the Sierra Madre Mountains are vast canons, (*kan-yuns*, i. e. deep channels in the earth.) mostly forming the beds of streams, often two or three hundred feet in depth, and almost shut out from the light of day. In the same region are found steep bluffs of red and white sandstone rock, worn by the action of the elements into very striking resemblances of fortresses, castles, etc. Lieutenant Simpson has given some sketches of the most remarkable, in his recent work on New Mexico. One curiosity of the country is the deserted pueblos, or Indian villages, which give evidence of having been the abode of a much more dense population than subsists there at present.

The pueblo of Taos, in New Mexico, is one of the most remarkable now existing. It consists of an edifice about 400 feet long by 59 wide, and is divided into long ranges of apartments, one above the other, forming a pyramidal pile of 50 or 60 feet, and five or six stories in height. This great building, it is said, affords habitations for five or six hundred people.

The second class, where the tribe or community live in a village, consist of buildings generally of one story, but sometimes of two. When of the latter, the entrance is by ladders from the outside, as before mentioned. The object of this is to render them perfectly isolated, and to afford them protection from an enemy. To render these dwellings more secure, villages and large edifices are usually built upon the summit of a rock, or hill, and when this is not convenient, on the open plateau, where there is neither tree, bush, nor rock to conceal an enemy. These people often choose a spot near some eminence which may command a view of the adjacent country, where they may establish a look-out, and place a sentinel to give warning, if an enemy should approach.

"Cascade Grotto," says Lieutenant Whipple, "is too wildly beautiful to pass unnoticed. A series of cascades, formed by a mineral spring, which gushes from the mountain, leap from cliff to cliff, until they join the Gila, 1,000 feet below. Beneath the first water-fall is a charming cave, filled with petrifications. Among the Organ Mountains, (themselves an object of great interest, rising as they do 3,000 feet above the river,) a little stream whose source is far within a defile, tumbles over the rocks in a single fall of 50 feet."

CLIMATE.—The habitable part of the valley of the Rio Grande lies in the latitude of the northern and central portions of the southern States; but its climate is very much modified by its great elevation, giving it a temperate but constant climate. The mercury sometimes rises to 100°, but the evenings are always cool. Some of the higher peaks of the mountains are covered with perpetual snow. Considerable rain falls between July and October, but New Mexico has essentially a dry atmosphere, being most of the year parched where there is no irrigation.

SOIL AND PRODUCTIONS.—Many parts of the valley of the Rio Grande and of other streams, are highly productive, and yield fine crops of Indian corn, wheat, and other grains, besides apples, peaches, melons, apricots, and grapes. Among the valleys of the Sierra Blanca, in the north-east of New Mexico, the pasturage is excellent; and the large valley of San Luis, in the same region, is one of the most fertile in the Territory. But in most places irrigation is necessary to successful agricultural operations. During the dry season, however, in some districts, even this resource fails, from the total evaporation of the streams. On the table-lands there grows a peculiar grass, which in the dry season cures and preserves its nutritious qualities. On this cattle, sheep, horses and mules feed all the winter, and preserve themselves in good condition. The mutton of New Mexico is excellent.

The principal agricultural district of New Mexico is the valley of

the Rio Grande. This river is the main artery of the Territory, rising near its northern boundary, and flowing through its entire length. This valley is from one to four miles in width, but sometimes expands to ten or fifteen miles. It has a light soil, and, by means of artificial irrigation, it is rendered very productive. It is not unusual for the same land to yield two crops a year. As there is but little rain, artificial irrigation is necessary. This is accomplished by damming up the streams and leading the water by canals and ditches, called *acequias*, over the valleys. Near El Paso there is an *acequia* 20 miles in length.

Stock-raising is the most profitable source of income in New Mexico, the country being better adapted to this pursuit than to that of the cultivation of the soil. Immense flocks of sheep are raised, and mules in large numbers. In many parts the high plains and valleys and the smaller hills are covered with grass sufficient for the pasturage of millions of animals, and it is not necessary to shelter or feed them in winter. New Mexico supplies mules to the overland emigrants to California. It had in 1865 several hundred thousand milch cows, and 12,500,000 sheep.

WINE IN NEW MEXICO.—The following communication from Dr. Henry Hilger, United States Assessor at Los Lunas, New Mexico, was published in the Monthly Report of the United States Agricultural Department for November and December, 1866:

"I beg to direct your attention to the excellent soil and climate of this country for grape culture; any capital brought here and invested in the product of wine is sure to pay high interest. The manufacture of wine from the grape is mainly the same as described in the highly creditable report of Major W. H. Emory on the Mexican boundary, vol. 1, page 49, with the exception that several years since, a few Americans, Germans, and Frenchmen commenced making excellent wines of grapes which they annually buy from Mexican vineyard owners or from the Indians of the pueblo of Isletta.

"The wines manufactured by these persons compete with the best products of European wine-makers. The greatest difficulty encountered in the sale of wines is the scarcity of means of sending to market; but as soon as the Pacific Railroad is completed as far as New Mexico, there can be no doubt that New Mexican wines will bring the highest prices in the United States markets."

In the public document above referred to, Major Emory alludes to El Paso (latitude 30° 44', longitude 106° 29') as one of the garden-spots of the interior of the continent. The following statements are extracted from his report:

"Whatever population may now, or hereafter, occupy the mountain system, and the plains to the east, must be dependent on mining or grazing, or the cultivation of the grape. The country must be settled by a mining and pastoral or wine-making population; and the whole legislation of Congress, directed heretofore so successfully toward the settlement of lands east of the 100th meridian of longitude, must be remodeled and re-organized to suit the new phase which life must

assume under conditions so different from those to which we are accustomed.

"Southern California, the whole of the upper valley of the Gila, and the upper valley of the del Norte as far down as the Presidio del Norte, are eminently adapted to the cultivation of the grape. In no part of the world does this luscious fruit flourish with greater luxuriance than in these regions, when properly cultivated. Those versed in the cultivation of the vine represent that all the conditions of soil, humidity, and temperature are united in these regions to produce the grape in the greatest perfection. The soil, composed of the disintegrated matter of the older rocks and volcanic ashes, is light, porous, and rich. The frosts in winter are just sufficiently severe to destroy the insects without injuring the plant, and the rain seldom falls in the season when the plant is flowering, or when the fruit is coming to maturity and liable to rot from exposure to humidity. As a consequence of this condition of things, the fruit, when ripe, has a thin skin, scarcely any pulp, and is devoid of the musky taste usual with American grapes.

"The manufacture of wine from this grape is still in a crude state. Although wine has been made for upwards of a century in El Paso, and is a very considerable article of commerce, no one of sufficient intelligence and capital to do justice to the magnificent fruit of the country has yet undertaken its manufacture. As at present made, there is no system followed, no ingenuity in mechanical contrivance practiced, and none of those facilities exist which are usual and necessary in the manufacture of wine on a large scale; indeed, there seems to be no great desire beyond that of producing as much alcoholic matter as possible. The demand for strong alcoholic drinks has much increased with the advent of the Americans; and in proportion as this demand has increased, the wine has decreased in quality. On one occasion, I drank wine in El Paso which compared favorably with the richest Burgundy. The production of this wine must have been purely accidental, for other wine, made of the same grape, and grown in the same year, was scarcely fit to drink. Cotton and corn grow with luxuriance, where water can be brought to irrigate the soil, throughout the valleys of the Gila and Rio Bravo, and upon the lower Rio Bravo; and upon the Rio Colorado, below its junction with the Gila, sugar-cane flourishes."

FOREST TREES.—Only a small portion of the surface is covered with forests, and the country is almost entirely destitute of the hard woods. Some of the streams are fringed with cotton-wood, and pine of an inferior quality occurs on the mountains. Sycamore, ash, cedar, walnut, evergreen, oak, and willow, are found in small quantities.

CITIES AND TOWNS.—*Santa Fe*, the capital and largest town of New Mexico, is situated on the Rio Chicito, or Santa Fe River, an affluent of the Rio Grande, from which it is distant about twenty miles in a direct line. Latitude, $35^{\circ} 41'$ north; longitude about $106^{\circ} 10'$ west. It is the great emporium of the overland trade which, since 1822, has been carried on with the State of Missouri. Each of the houses, which are principally built of dark-colored adobes, or unburnt brick, usually

forms a square, with a court within, upon which nearly all the apartments open from the street. There is generally but one entrance, which is wide and high enough to admit animals with their packs. Much of the ground in and around Santa Fe is extremely sandy, and in dry weather, when the wind is high, this is a source of great annoyance. The place is well supplied with cool water from springs within its limits, and also from fountains above the city near the mountain side. Numerous *acequias*, (a-sa'ke-as,) or small canals, are led through the streets, and afterward serve to irrigate the gardens and fields below the town for several miles. It stands on a plateau, which is elevated about 7,000 feet above the sea, and a short distance south-west of the base of a snow-capped mountain, which rises 5,000 feet above the level of the town. The other principal towns are Albuquerque, Socorro, and Taos.

MANUFACTURES AND COMMERCE.—Among the manufactures of New Mexico are blankets, serapes, and a coarse kind of carpets. There are also a number of distilleries. All the merchandise received in and sent from New Mexico is by trains of wagons. From St. Louis large trains are sent to Santa Fe with merchandise, which supplies all the northern portion of the Territory. The commerce of El Paso and of the southern portion is with San Antonio, Texas. The caravans make the northern journey in from fifty to sixty days, and the southern in forty or fifty. Sometimes, when the grass is deficient, a longer time is required.

According to the United States census of 1860, there were in New Mexico eighty-six manufacturing establishments, with a capital of \$2,081,900 invested therein, consuming or using annually, including fuel, \$432,000 worth of raw material, employing 949 male hands and thirty females, and manufacturing products of the yearly value of \$1,165,000.

POPULATION.—The aggregate population of New Mexico, including Arizona, was, by the national census of 1860, 93,516, including 10,507 taxed Indians. The population of Arizona at that time was 6,482, of whom 4,040 were taxed Indians. At an election held in 1865 in New Mexico for delegate to Congress, the total vote cast was 14,691. J. Francisco Chavez was elected delegate.

COUNTIES.—The following table contains a list of the counties in New Mexico, with the aggregate population in each by the census of 1860, and the total number of votes cast in each at the election for Territorial Delegate to Congress in 1865:

COUNTIES.	POP. IN 1860.	VOTES CAST IN 1865.
Bernalillo.....	8,769	1,885
Dona Ana.....	6,289	1,172
Mora.....	5,566	1,560
Rio Arriba.....	9,849	1,885
Santa Anna.....	8,572	424
Santa Fe.....	8,114	1,272
San Migul.....	13,714	2,543
Socorro.....	5,787	1,158
Taos.....	14,103	1,869
Valencia.....	11,321	1,478
Totals	87,034	14,691

HISTORY.—New Mexico was among the earliest of the interior portions of North America visited by the Spaniards. Alvar Nunes, (Cabeça de Vaca,) with the remnant of those who accompanied Narvaes to Florida, reached New Mexico before 1537, and made report to the Viceroy of Mexico of their discoveries. An expedition under Coronado, in 1540, traversed the country north of the Gila, occupied by the Pueblo Indians, and pushed their way eastward beyond the Rio Grande to the country of the *cibola*, or buffalo. Coronado is the first who speaks of that animal, which he calls "a new kind of ox, wild and fierce, whereof the first day they killed fourscore, which sufficed the army with flesh." In 1581 other adventurers made known the mineral wealth of the country, which caused it to be called New Mexico. About this time Augustine Buiz, a Franciscan missionary, entered the country, and was soon afterward murdered by the Indians. Don Antonio Espejo was sent with a body of men to protect the missions. The Viceroy of Mexico also sent Juan de Onate to take formal possession of the country in the name of Spain, and establish colonies, missions, and forts. He arrived there about the year 1600. The missionaries met with great success in their efforts at the christianization of the Indians. The Pueblo Indians more readily adopted the new faith than the roving tribes; and on recently rediscovering some of these Pueblos, it was found that, though they had been without a priest for nearly a century, they had preserved many of the Christian rites and doctrines, yet strangely blended with their old religion.

Many of the natives, at the time the Spaniards took formal possession of the country at the close of the sixteenth century, were considerably advanced in civilization. They wore cotton garments of their own manufacture. Their arms were large bows and arrows, terminated with sharp-pointed stones, and long wooden swords, also armed with sharp stones. They carried shields made of the raw hides of buffaloes. Some of them lived in stone houses several stories high, with the walls ornamented with pictures, residing in the valleys and cultivating the soil. In the villages were a great many idols, and in every house a chapel dedicated to some evil genius.

Under the administration of Onate, many new missions were established, and mines were opened and worked. But the colonists enslaved the Indians and compelled them to work in the mines. The spirit of the natives revolted, and after several ineffectual attempts to free themselves from their oppressors, they finally, in 1680, drove the Spaniards out of the country, and reconquered it to themselves as far south as El Paso del Norte. The Spaniards attempted several times to regain their lost possessions, but did not succeed until 1698.

In 1846 Santa Fe was taken by the United States forces under General Kearney, who soon after conquered the whole territory from Mexico, which in 1848 ceded it to the United States by the treaty of Guadalupe Hidalgo. New Mexico was organized as a Territory of the United States on the 9th of September, 1850.

UTAH.

UTAH was originally a part of Upper California, and was ceded by Mexico to the United States in 1848 by the treaty of Guadalupe Hidalgo. It was erected into a separate Territory in 1850, but since that time its original area has been greatly reduced. It is bounded on the north by Idaho, and on the north-east by Dakota; on the east by Colorado, on the south by Arizona, and on the west by Nevada. It lies between 37° and 42° of north latitude, and 32° and 38° of longitude west from Washington. It is at present included within the following specific limits: Beginning at the intersection of the 42^{d} of latitude with the 33^{d} of longitude; thence south along said 33^{d} meridian of longitude to the 41^{st} of latitude; thence east on said 41^{st} parallel of latitude to the 32^{d} of longitude; thence south on said 32^{d} meridian of longitude to the 37^{th} of latitude; thence west on said 37^{th} parallel of latitude to the 38^{th} of longitude; thence north on said 38^{th} meridian of longitude to 42° of latitude, and thence east on said 42^{d} parallel of latitude to the place of beginning.

Utah extends about 350 miles from north to south, and about 250 from east to west. It covers the region drained by the Great Salt Lake, and probably some 10,000 square miles besides. On the east are the Wasatch Mountains, the first of the subsidiary ranges of the Rocky Mountains, and, as it were, the eastern guard of the Salt Lake Valley, and on the west the Great Central American Desert, as it is sometimes called, forming part of the vast interior basin of this section of the North American continent, which is hemmed in by mountains on all sides; has a general elevation of 4,000 to 5,000 feet above the level of the sea, and has its own system of lakes and rivers, but no communication with the ocean. The valley, or basin, of the Great Salt Lake is likewise a continent within a continent, with its own miniature salt sea, its independent chain of mountains, its distinct lakes and rivers, but with no outlet to the ocean.

The Wasatch Mountains, 10,000 feet high, and covered with perpetual snow, inclose the Salt Lake Valley on the east and south. This great branch or range of the Rocky Mountains lies south of Great Salt Lake, and under various names, passes north to the east of that lake. Toward the south-west this mountainous region is traced along the west side of the Colorado toward the Sierra Nevada, which bounds California on the east. In Utah the mountains spread over a wide district, and the ridges of the several groups run in various directions, the course of those known as the Uintah Mountains, east of Great Salt Lake, being east and west. The only drainage from these mountains into the ocean is from their east and north sides. By the Colorado, the waters are carried south-west to the head of the Gulf of California, in latitude 32° north, and by the Lewis or Snake Fork of the Colum-

bia River, north-west to the Pacific Ocean, in latitude 46° north. Nearly the whole distance between these points, and for a width of about ten degrees of longitude, stretching east from the Sierra Nevada, is a vast territory, from 4,000 to 5,000 feet above the level of the sea, abounding in lakes and rivers, some of the lakes being salt, and none of them having an outlet to the ocean. Into this great interior basin flow all the waters that fall on the western slopes of the Wasatch range and the eastern slope of the Sierra Nevada.

MINERALS AND MINING.—The mountainous regions of Utah are, doubtless, rich in mineral wealth. Discoveries hitherto have been chiefly of silver, in connection with large deposits of lead and copper. Among the canons or ravines of the Rush Lake Valley, from a hundred to two hundred mines, recently discovered, are worked to various depths of ten to one hundred feet. Some old Nevada miners, who have inspected these mines, describe them as promising to become fifty per cent. better than the famous silver mines of the Comstock Lode. In Nevada, a yield of fifty or a hundred dollars to a ton of ore is considered a fair and profitable return; but the Rush Valley ores of Utah have produced from one hundred to five hundred dollars per ton, and lodes have been opened that afford from one thousand to four thousand dollars to the ton. This last extraordinary yield was obtained from a mine opened in 1865, and named the New York lead. The further these mines are worked, the richer they grow. There are mines of bituminous coal of a fair quality over the mountains, forty miles east of Salt Lake City.

In more remote parts of the Territory, other silver mines have been discovered, and have been worked with success. Their distance from markets, the want of suitable machinery for their profitable operation, and the lack of capital among those who have discovered them, have hitherto retarded their complete development; but in the opinion of those best acquainted with these mines, they offer one of the best fields in the West for capital and enterprise, and induce the belief that when they become better known, they will produce such an interest and excitement as will give Utah a new population and a more rapid growth.

COUNTIES.—Utah is divided into the following counties: Beaver, Box Elder, Cache, Davis, Great Salt Lake, Green River, Iron, Juab, Kane, Millard, Morgan, Pi-ute, Richland, Sawpete, Sevier, Summit, Tooele, Utah, Wasatch, Washington, and Weber.

Great Salt Lake City is the county town of Great Salt Lake; Provo City, of Utah, and St. George, of Washington County.

LAKES AND RIVERS.—Great Salt Lake is one of the most prominent attractions in the topography of Utah. It is a miniature ocean in the northern part of the Territory, about fifteen miles from Salt Lake City, fifty miles wide by one hundred in length, and so salt that no fish can live in it, and that three quarts of its briny water will boil down or evaporate to one quart of pure salt. Three or four quite large streams empty into it, and yet it has no visible outlet. By evaporation, in hot weather, its shores are covered with a thick incrustation of salt. It has high, rocky islands; its broad expanse offers a wide space for sail-

ing, and the scenery it presents is described as picturesque and enchanting. About 25 miles south of this, and communicating with it by the river Jordan, is Utah Lake, a body of fresh water about 35 miles in length. It is stored with trout and other fish. These lakes are elevated from 4,200 to 4,500 feet above the sea. There are also numerous small lakes in different parts of the Territory.

Bear River, coming down from Idaho, is the principal tributary of Great Salt Lake. The Green and Grand Rivers traverse the eastern basin or valley, forming the Colorado River, which flows south-westwardly into Arizona. The Grand River, the most eastern branch, rising in the Rocky Mountains, flows south-west to meet Green River, which is the larger tributary, and has its sources in the south-east part of Idaho. These streams and their affluents drain the entire eastern division of Utah. The former has a course of about 300 and the latter of about 400 miles.

OBJECTS OF INTEREST TO TOURISTS.—Of these there is no scarcity in this widely-extended Territory. Among the most remarkable objects of this region is the Great Salt Lake. In the saltiness of its waters, in the circumstance of its having no outlet, and being fed from another smaller and fresh water lake, (with which it is connected by a stream called the "Jordan,") and in the rugged and repulsive character of some portions of the surrounding region, it bears a remarkable resemblance to the Dead Sea of Palestine. Instead, however, of lying 1,000 feet below, it is more than 4,000 feet above the level of the sea; its waters, moreover, being about one-fourth pure solution of common salt, are free from that pungency and nauseous taste which characterize those of the Dead Sea. Near Brown's Hole, in the neighborhood of Green River, in about 41° north latitude, and 109° west longitude, are a number of narrow canons or gorges, with nearly perpendicular walls from 600 to 800 and even 1,500 feet in height, presenting scenes of great wildness and grandeur. There are two large sulphur springs, one hot enough (one hundred and twenty degrees) to boil an egg, which is four miles from the center of Salt Lake City, and the other just the right temperature for a hot bath, (ninety degrees,) which is close to the city, and is brought into a large inclosure within it for free bathing purposes. Both the streams from these springs afford water enough for an illimitable amount of bathing, the water is highly sulphurized, and as clear as that of the celebrated Sharon Springs, and its use, either for drinking or bathing, is said to be most effective in purifying the blood and toning up the system. Other and smaller springs of a similar character have been found in the neighborhood of the city.

CLIMATE.—As elsewhere remarked, the climate of the great plateau between the Rocky and Sierra Nevada Mountains, seems to partake of the characteristics of the great Tartar plains of Asia. According to Orson Pratt, the midsummer is dry and hot, the heat ranging at midday from 90° to 105°, but with cool mornings and evenings, refreshed with mountain breezes. The winters are mild, snow seldom falling more than a few inches deep in the valleys, nor does it lie long. Spring and autumn, though mild, are subject to sudden changes, and the wind is very vari-

able, shifting, almost every day, to every point in the compass. Rain seldom falls between April and October; but when heavy showers do come, they are generally accompanied by thunder and hail, and sometimes with strong winds. Dr. Bernhisel and Mr. Snow say that the climate of Great Salt Lake City, in latitude $40^{\circ} 45'$ north, is milder and drier than the same parallel on the Atlantic coast, and the temperature more uniform, the thermometer rarely descending to zero. During three years, according to observation, the highest point attained by the thermometer was 100° above, and the lowest 5° below zero. The variation between the temperature of day and night, in midsummer, is from 20° to 40° . Frosts in Utah Valley fall as late as the last of May, and as early as the first of September.

SOIL AND PRODUCTIONS.—The most fertile portions of Utah are found in the valleys watered by the pure streams flowing from the neighboring mountains, and generally at the bases of the mountains the land is extremely fertile. The Mormon settlements occupy the valleys from north to south, lying mostly near the western base of Wasatch Mountains. These are highly fertile. Wheat, rye, barley, buckwheat, Indian corn, and the garden vegetables of the Middle States, are the products of Utah. There is a fine bunch-grass, which, owing to the dryness of the climate, does not decay, but furnishes fodder for the cattle during winter, without being cured. The Indian corn and vines are liable to be blighted by early and late frosts. The experiments in rearing fruits do not appear yet to have been sufficiently tested to pronounce definitely as to the congeniality of the climate with their healthful production. Peaches and other fruits, have, however, been raised. But the soil of the valleys is especially favorable to the production of the small grains. Fifty and sixty bushels to the acre is a very common crop of wheat, oats, and barley, and over ninety have been raised. But as on the plains, among the mountains, and on the Pacific shore, so here in Utah, as well as in Nevada west of it, and Arizona south of it, irrigation is generally necessary to successful farming. Utah, however, differs from the other regions mentioned in this: that in it agriculture, not mining, is the chief business of the inhabitants. They have been obliged therefore, to resort to extensive and general irrigation. They tap the mountain streams at various elevations, and convey the water by canals, large and small, to the gardens and fields, and by almost infinite little courses spread the water over the whole ground, over the grain, between the rows of corn, and among the trees and vegetables. This work is performed by individuals, by villages, and by companies. The water is apportioned to those desiring it according to their land, or the amount they can afford to pay. This seems a laborious and expensive process; but the soil by this means becomes so fertile, and yields so abundantly, that, with large crops and high prices, irrigated farming is not only remunerative but very profitable. The only drawback there is lies in the fact that the mountain streams do not afford water enough for the irrigation of the valleys. The consequence is that many a tract that would otherwise become fertile and blooming as the Garden of Eden, now lies barren and unproductive.

Cotton grows abundantly in the southern settlements of Utah, and experiments with flax, the mulberry tree and the silk-worm, have proved eminently successful.

FOREST TREES.—Timber is scarce throughout this Territory, except on the mountains, and is principally composed of pine and fir trees. There are some groves of cotton-wood and box-elder in the bottoms of the principal streams, and a scrub cedar also in some of the valleys. Wood, both for building and fuel, is scarce.

MANUFACTURES.—Much progress in manufactures is hardly to be expected in so youthful a settlement; but Mr. Pratt represents them as starting up with vigor, particularly the manufacture of flour, and the more necessary implements of husbandry and houswifery, and the cheaper stuffs for clothing. The great distance for supplies from abroad, and the great cost of transport, must, perforce, encourage home manufactures. The census of 1860 reported 152 manufacturing establishments in Utah, with a capital invested therein of \$412,126, using annually raw material, including fuel, worth \$398,528, employing, on an average, 348 male hands and nine females, and annually manufacturing products to the value of \$823,000. The policy of the Mormon leaders has been to confine the people to agriculture, and they have, therefore, pretty uniformly discouraged manufacturing and mining. Only a few of the simpler manufactures have been introduced into the Territory. There were in 1865 three cotton-mills, confined chiefly to the manufacture of cotton yarns, and one woolen-mill. There were also probably a hundred flouring-mills in the Territory. Hides being plenty, tanneries are established, and boots and shoes manufactured to a considerable extent.

COMMERCE.—The trade of Utah is pretty much confined to traffic with the overland emigrants to California. They find also a ready sale for their live stock in the same State. It is possible that a trade down the Colorado River with California may be opened at some future day, as recent explorers report that river navigable for steamers of light draft for four hundred miles, or within six hundred miles of Salt Lake City.

POPULATION.—The population is principally composed of Mormons, who settled here in 1847, after their expulsion from Missouri and Illinois. Continual accessions of this new sect are arriving from all parts of the Union and from Europe. According to an enumeration made in 1863, by the Mormons themselves, the total population was 88,206, exclusive of Indians, of whom there are several tribes in a very degraded state, subsisting mostly on roots, berries, fish, etc., and living generally in caves or bushes, but sometimes in wigwams or tents, and going nearly naked. The total white population of Utah was estimated in 1865 at 120,000. The larger proportion, probably a majority, of the people of Utah are foreigners, recruits obtained by missionaries sent out over the whole world. The larger portion are English, from the factory towns of Great Britain. But Germans, Swedes, Finns, Scots, Icelanders, and even East Indians, are found there. President Young boasts that fifty nationalities are represented in Utah.

CITIES AND TOWNS.—The principal town is Great Salt Lake City. The other principal places are Brownsville, Ogden City, Prove City, Manti City, Fillmore City, and Parovan. These towns are mostly built of adobes or unburnt bricks, and are named (with the exception of Salt Lake City) in order, proceeding from north to south, and scattered over a space of nearly 300 miles, mostly near the base of the Wasatch Mountains. Fillmore is the capital of the Territory, and is situated near its center.

Salt Lake City, capital of Salt Lake County, is situated near the east bank of the Jordan River, which connects Great Salt Lake with Utah Lake, about fifteen miles south-east of the Great Salt Lake, and 4,200 feet above the level of the sea. It was laid out in July, 1847, by a company of 143 Mormons. The city contains 260 blocks of ten acres each, separated by streets which are 128 feet wide. There are eight houses in each block, so arranged that no two houses front each other. The houses are built of adobes or sun-dried bricks, covered with plaster, and generally of one story, with as many front doors as the proprietor has wives. The building lots have an area of one acre and a quarter each, except in the business, or more densely populated portions of the city, where they are of smaller dimensions. Some of the stores are built of stone, and are capacious and elegant. Through each street flows a stream of water for irrigating the gardens and private and public grounds.

Brigham Young's establishment occupies a full square, embracing several dwellings, a school-house for his forty or fifty children, extensive stables, a grist-mill, a carpenter's shop, and the "tithing" office. The last is a large edifice, wherein is deposited one-tenth of all the products of the Territory for the use of the Church. The square opposite is devoted to ecclesiastical uses, and on it are the old Tabernacle, a new and larger one in progress of completion, and the foundations of the great Temple, commenced in 1853, designed to be 150 feet long by 60 wide, and to be built in Gothic style of architecture. Within the same inclosure is the "Bowery," an immense thatch of green boughs, capable of accommodating an audience of several thousand. The general Sunday services are held here during the warm weather. Both President Young's square and the Church-grounds are inclosed by solid walls of mud and stones, twelve feet high, and walls of a like character are used for fences about many private residences.

Salt Lake City has also a theater, which, it is said, for capacity, elegance of structure, and finish, may compare favorably with the opera-houses and academies of music in the Eastern cities. In costumes and scenery, it is furnished with equal richness and variety. The performances, though by amateurs—merchants and mechanics, and the wives and daughters of citizens—are spoken of as such as would be highly creditable to any professional company. President Young built and owns the theater, and conducts it on his own private account, or on that of the Church, as he does many other valuable and profitable institutions of the Territory, such as cotton, saw and flour-mills, the best farms, etc. During the winter season, performances are given

thrice a week, and the theater is the center of a great popular attraction and social entertainment.

The climate of the valley in which the city stands is very salubrious, and the soil, where it can be irrigated, is extremely fertile. Wheat is said to produce, under favorable circumstances, a hundred-fold. The mountains which inclose the valley on the east side are covered with perpetual snow. Their summits are said to be about 10,000 feet (nearly two miles) above the level of the sea.

HISTORY AND GOVERNMENT.—An account has been given in another part of this work of the migration of the Mormons to Utah, of the founding of Salt Lake City, the organization of the Territory in September, 1850, and the appointment of Brigham Young for its first Governor. In 1851, the Federal judges were forced by threats of violence from Brigham Young to leave Utah, and the laws and authority of the United States were openly defied and set at naught. This led to the removal of Brigham Young and the appointment of Colonel Steptoe as Governor. In August, 1854, Colonel Steptoe arrived in Utah with a battalion of soldiers, but such was the state of affairs that he did not deem it prudent to assume the office of Governor, and after wintering in Salt Lake City, he formally resigned his post, and removed with his troops to California. In a sermon preached in the Tabernacle at Salt Lake City, on the Sunday after Colonel Steptoe's departure, Brigham Young said: "I am and will be Governor, and no power can hinder it, until the Lord Almighty says, 'Brigham, you need not be Governor any longer.'"

In February, 1856, a mob of armed Mormons broke into the courtroom of the United States District Judge, and at the point of the bowie-knife compelled Judge Drummond to adjourn his court *sine die*. Soon afterward all the United States officers, with the exception of the Indian Agent, were compelled to flee from the Territory. President Buchanan determined to supersede Brigham Young in the office of Governor, and to send to Utah a military force to protect the Federal officers and enforce obedience to the laws. The office of Governor was accordingly conferred in 1857 upon Alfred Cumming, a Superintendent of Indian Affairs on the Upper Missouri, and that of Chief-Justice on Judge Eckels, of Indiana, and a force of 2,500 men, under experienced officers, were sent out to protect them in the discharge of their duties. The Mormons were greatly excited at the approach of these troops. In his capacity of Governor, Brigham Young issued a proclamation forbidding the troops to enter the Territory, and calling the people of Utah to arms to repel the threatened invasion. The army reached Utah in September, and early in October was attacked by a body of mounted Mormons, who destroyed several of the supply trains, and cut off 300 oxen from the rear of the army, driving them to Salt Lake City.

The army, of which Colonel Johnston had by this time assumed command, was overtaken by the snows of winter before it could reach Salt Lake Valley, and about the middle of November went into winter quarters on Black's Fork, near Fort Bridger. Governor Cumming

issued a proclamation declaring the Territory in a state of rebellion. In the spring of 1858 a good understanding was brought about between Governor Cumming and the Mormon leaders, through the intervention of Mr. Thomas L. Kane, of Pennsylvania, and in May commissioners arrived in Utah with a proclamation from the President, offering pardon to all who would submit to the Federal authority. The offer was accepted by the Mormon leaders, and shortly afterward the troops entered the Territory, where they remained until withdrawn, in May, 1860.

On the 20th of January, 1862, a Convention met, in accordance with a resolution of the Territorial Legislature, and framed a State Constitution, similar in its essential features to most of our State Constitutions. This Constitution was submitted to the people on the 3d of March following. At the same time an election was held for Governor and other State officers, and member of Congress. The new State was to be called Deseret. The Constitution was ratified by a vote of 9,879. Brigham Young was elected Governor, having received 9,980 votes, the whole number cast. Heber C. Kimball was chosen Lieutenant-Governor, and John Bernhisel, then delegate from the Territory to the 37th Congress, was selected for Representative in Congress from the State of Deseret. Members of a State Legislature were also chosen at the same time. The elected were, of course, all Mormons, and bound to support the Mormon Church, its creed, and practices. The State Legislature convened on the 14th of April, and chose United States Senators. The application of the people of Utah to be admitted as a State of the Union was laid before Congress, but no other action was taken upon it than to refer it to the proper committee.

Utah possesses at the present time three distinct governments, extending over the whole Territory in form, if not in fact. There is, first, the Territorial Government, established by virtue of the organic act of Congress of 1850; secondly, the Government of the so-called State of Deseret, of which Brigham Young is Governor; and, thirdly, the Government of the Church, of which Brigham Young is First President and the Supreme Head. The Territorial Government, though having a formal existence, has but little vitality or power; the Mormon ecclesiastical organization is by far the stronger of the two. This organization is known as the "Mormon Church of Jesus Christ of the Latter-Day Saints," and was organized in 1864, as follows:

First Presidency.—The first quorum of authority in the Church is the First Presidency, and is composed of three members—Brigham Young, Heber C. Kimball, and David H. Wells.

Twelve Apostles.—The next quorum in authority is the Twelve Apostles—Orson Hyde, Orson Pratt, John Taylor, Wilford Woodruff, Geo. A. Smith, Amasa M. Lyman, Ezra T. Benson, Charles C. Rich, Lorenzo Snow, Erastus Snow, Franklin D. Richards, George Q. Cannon.

Seventies.—The next quorum in authority is the Seventies. The seventy members that constitute the first quorum of Seventies, are all Presidents of the first ten quorums of Seventies, making seven Presidents to each quorum; the members of all the other quorums of Seventies number

sixty-three—each quorum having seven Presidents. There are sixty-eight quorums of Seventies organized in Utah Territory.

High-priests.—There is a quorum of High-priests, the numerical extent of which is not defined. This quorum has a President and two Counselors.

There are also quorums of Elders, Priests, Teachers, and Deacons.

The Seventies and High-priests in the various settlements in the Territory have meetings, and are regulated by a local Presidency, separate from, but subservient to, the standing Presidencies of their quorums.

John Smith, son of Hiram, is Presiding Patriarch. There are several Patriarchs in the Church.

High Council.—There is a High Council, composed of twelve members, organized at Salt Lake City, and in all the principal settlements of the Territory.

Bishops.—The Territory is divided into wards; over each ward is a Bishop with two Counselors. Great Salt Lake City is divided into twenty wards. Edward Hunter is the Presiding Bishop.

Membership.—In the Territory the numerical membership of the Church will nearly correspond with the population. Throughout the United States there are branches and members of the Church, but at present so unorganized that the number is not known.

There are organized branches and conferences of the Church throughout England, Scotland, Ireland, Wales, Denmark, Norway, Switzerland, Germany, and other parts of the world.

At the beginning of the year 1867, the Territorial Governor of Utah was Charles Durkee, and the Delegate from the Territory to the 39th Congress was William H. Hooper, of Salt Lake City. The Territorial elections are held on the first Monday in August, and the Territorial Legislature, consisting of a Council and House of Representatives, meets on the second Monday in December.

WASHINGTON.

THIS Territory occupies the extreme north-west portion of the domain of the United States. It is bounded on the north by the Straits of Juan de Fuca (which separate it from Vancouver's Island) and British America, east by Idaho, south by Oregon, (the Columbia River forming about half the boundary line,) and west by the Pacific Ocean. It lies (with the exception of a small bend in the Columbia River) between 46° and 49° north latitude, and between 117° and 125° west longitude. It was organized in 1853, and contained originally nearly double its present area. It embraces now probably about 70,000 square miles.

FACE OF THE COUNTRY AND MOUNTAINS.—The same general description of the surface as given in Oregon will apply to Washington, except

that the Blue Mountain range is more broken and scattered north of the Columbia River. The principal peaks of the Cascade Range in this division are Mount St. Helen's, Mount Adams, Mount Rainier, and Mount Baker. Mount Olympus, the highest peak of the Coast Range, has an elevation of 8,197 feet. Most of these peaks are clothed with perpetual snow. Mount St. Helen's and Mount Rainier have been respectively estimated at 13,300 and 12,000 feet elevation.

MINERALS.—There has been little opportunity as yet to develop the mineral resources of this new Territory. Coal has, however, been discovered on or near Bellingham Bay, accompanied by the new red sandstone, which furnishes a fine building material, 20 or 30 miles up the Cowlitz River, and in the region about Puget's Sound, in abundance. Fossil copal exists on the shores of the Pacific, north of the Columbia River.

RIVERS, BAYS, SOUNDS, AND ISLANDS.—The Columbia River enters the Territory from British America, and crosses it first in a south-west and then in a south direction, till it arrives a little below 46° north latitude, when it turns westwardly and forms the south boundary, from the point just named to its mouth in the Pacific Ocean. This river divides Washington Territory into two parts, having the larger portion on the west; the Okanogan, from British America, is its principal branch on the north, and Yakima in the southern part of the Territory: both of these rivers enter the Columbia from the west. On the east, proceeding in order southwardly, its tributaries are the Flathead, or Clarke, Spokane, Saptin, or Lewis, and Walla Walla Rivers. The Clarke's and Lewis are large rivers, having their sources in the Rocky Mountains, and run in a north-west direction. The Cowlitz, the principal branch of the Columbia west of the Cascade Range, has a course of perhaps 100 miles. Chehalis or Chickalees, about 130 miles long, is the only river of importance discharging its waters directly into the Pacific from this Territory, except the Columbia. The Straits of Juan de Fuca, between Washington and Vancouver's Island, connect the Pacific Ocean with Admiralty Inlet, Puget's Sound, and Hood's Canal, all arms of a great bay extending about 60 or 70 miles in a south direction from the Gulf of Georgia, and all navigable for the largest ships which may moor to the very banks, such is the precipitousness of its shores. Gray's Harbor, an expansion at the mouth of the Chekalis River, in about 47° north latitude, has capacity for only a small amount of shipping. The Columbia, though navigable for ocean craft to the Cascades, is much obstructed near its mouth by sandbars and shallows, which make the navigation difficult, and have caused the loss of many vessels. The rest of this, as well as other rivers in Washington, are only navigable by boats and canoes, being much obstructed by rapids and falls. The principal of these are Kettle Falls, in the Columbia River, just below the mouth of Clarke's River. Shoalwater Bay, south of Gray's Harbor, opens into the Pacific by a narrow inlet. Bellingham Bay is an arm of the Gulf of Georgia near the north-west extremity of Washington. Elliott Bay is on the east side of Admiralty Inlet. The rivers of Washington, particularly west of the Cascade Mountains, having their sources

in those snowy summits, are liable to sudden floods, which inundate the lowlands on their shores. The rapids and falls abound in splendid sites for mill-seats. Cape Flattery, at the entrance of Juan de Fuca Straits, and Cape Disappointment, within the entrance of the Columbia River, are the principal capes. There are no large islands on this coast. The most important is Destruction, or Isle of Grief, about 40 miles south of Cape Flattery. In Admiralty Inlet is Whidby's Island, about 40 miles long, covered with fertile prairies, and noted for its deer. It has sufficient timber, but a scarcity of water. North-west of it are the Arroo Islands, so valuable for their fisheries.

OBJECTS OF INTEREST TO TOURISTS.—Washington shares with Oregon the grand scenery on the Columbia, the Cascades, the Dalles, and other interesting points. Here the lofty summits of Mount St. Helen's, Mount Adams, Mount Ranier, and Mount Baker rear their snowy peaks from the Cascade range, and Mount Olympus from the Coast Mountains. According to the Rev. G. Hines, "Mount St. Helen's, in the month of October, 1842, was observed to be covered with a dense cloud of smoke, which continued to enlarge and move off to the eastward, filling the heavens in that direction, and presenting an appearance like that occasioned by a tremendous conflagration, viewed at a vast distance. When the first volumes of smoke had passed away, it could be distinctly seen from various parts of the country that an eruption had taken place on the north side of St. Helen's, a little below the summit; and, from the smoke that continued to issue from the chasm or crater, it was pronounced to be a volcano in active operation. When the explosion took place, the wind was north-west, and on the same day, and extending from 30 to 50 miles to the south-east, there fell showers of ashes or dust, which covered the ground in some places so as to admit of its being collected in quantities. This last phenomenon has been of frequent occurrence, and has led many to suppose that volcanic eruptions are not uncommon in this country."

CLIMATE, SOIL, AND PRODUCTIONS.—The climate is very similar to that of Oregon, with some variations caused by difference of latitude and local peculiarities. The same may be said of the soil. The Cowlitz Valley is the most fertile portion of this territory, in which agriculture has been attempted. The Chehalis Valley on the west, is said to have 400,000 acres of excellent prairie and heavily-timbered land. The country immediately around Puget's Sound is represented as sandy and unfertile, but producing large fir and cedar trees. On going, however, some distance back from the sound, you come upon fine prairies and forests, and small lakes filled with fine fish and skirted with timber. Whidby's Island is also very fertile, but deficient in water. There are reported to be rich valleys on the streams flowing into Bellingham Bay. The valley of the Duwamish River, which flows into Elliott Bay, is very fertile, and is rapidly settling. The lowlands bordering on the streams are very productive, and covered densely with timber. Mr. T. Winthrop, of New York, who left that region in September, 1853, speaks of the country between Puget's Sound and the Cascade Mountains as heavily timbered, chiefly with fir, with some scattered prairies and dry

barrens, the latter covered with pebbles of trap-rock, and sparsely wooded with oak. Across the mountains, the land is open prairie, well watered, with small and thinly wooded valleys. The country to the north of this, belonging to the Flatheads, Mr. W. reports as more abundant in timber and well adapted to settlements. The arable land in Washington Territory, west of the Columbia River, is estimated at 22,000 square miles. Its Governor thus spoke of its resources in January, 1854: "You are unquestionably rightly informed as to the war-time advantages of Puget's Sound, in affording a series of harbors almost unequaled in the world for capacity, safety, and facility of access; nor need you be told of their neighborhood to what are now the best whaling grounds of the Pacific. It is, however, only recently that the settlement of this part of our country has commenced to develop its resources, or to show the advantage which may be derived from its position, and it is these points which I desire to bring to your notice. That portion of Washington Territory lying between the Cascade Mountains and the ocean, although equaling in richness of soil and ease of transportation the best portion of Oregon, is heavily timbered, and time and labor are required for clearing its forests and opening the earth to the production of its fruits. The great body of the country, on the other hand, stretching eastward from that range to the Rocky Mountains, while it contains many fertile valleys and much good land suited to the farmer, is yet more especially a grazing country, one which, as population increases, promises in its cattle, its horses, and above all, its wool, to open a new and vast field to American enterprise. But in the mean time the staple of the land must continue to be the one which nature herself has planted, in the inexhaustible forests of fir, of spruce, and of cedar. Either in furnishing manufactured timber or spars of the first description for vessels, Washington Territory is unsurpassed by any portion of the Pacific coast."

A more recent traveler, who visited Washington in the summer of 1865, thus writes of that portion of the Territory lying on Puget's Sound: "It is the great lumber market of all the Pacific coast. Already a dozen saw-mills are located on its shores; one, which we visited, was 336 feet long, and turns out 100,000 feet of lumber daily; three ships and two barks, of 500 to 1,000 tons each, were loading with the product direct from the mill; and the present entire export from the sound, in prepared lumber, and masts and spars, reaches nearly to one hundred millions of feet yearly, and yields, at the average price of ten dollars a thousand, about one million dollars. San Francisco is the largest customer; but the Sandwich Islands, China, all the Pacific American ports, south and north, and even Buenos Ayres, around on the Atlantic, come here for building materials, and France finds here her cheapest and best spars and masts. Much of the shipping employed in the business is owned on the sound; one mill company has three vessels of from three hundred to one thousand tons each. The business is but in its very infancy; it will grow with the growth of the whole Pacific coast, and with the increasing dearth of fine ship-timber in other parts of the world for it is impossible to calculate the time

when, cut and saw as we may, all these forests shall be used up, and the supply become exhausted."

FOREST TREES.—Washington abounds in fine timber. Here is the same species of gigantic fir-tree which is found in Oregon and California, attaining a height of nearly 300 feet, and from 8 to 12 feet in diameter. The hills and valleys in the eastern part of the Territory, immediately west of the Rocky Mountains, are stated to be covered with a heavy growth of the finest timber. The forest trees around Puget's Sound are especially large, and comprise yellow fir, cedar, maple, oak, ash, spruce, hemlock, and alder. A recent correspondent states that there are at least 12 saw-mills at work, and 18 more in course of construction, and that there is lumber enough ready to freight a dozen ships. The cedar-tree of this region is represented as differing in some respects from either the red or white cedar of New England, though resembling both.

ANIMALS.—The forests abound in game and wild animals; among the latter are the elk, deer, bear, fox, otter, beaver, muskrat, and rabbit; and among birds, swans, geese, brant, gulls, ducks, eagles, grouse, pheasants, partridges, woodcock, hawks, ravens, and robins. Perhaps no region on the globe more abounds in fish than Washington. This is especially true of Puget's Sound and the adjoining waters. Cod, mackerel, halibut, herring, and flounders; and of shell-fish, the oyster, crab, clam, lobster, and many other species are found. The salmon resort to the Columbia and its tributaries in immense shoals.

AGRICULTURAL STATISTICS.—By the census of 1860, Washington Territory, which then included the northern portion of Idaho, and the north-western part of Montana, had 300,897 acres of unimproved land in farms, valued at \$1,116,202. The value of agricultural implements and machinery was \$202,506. The number of horses was 5,005; asses and mules, 178; milch cows, 10,034; working oxen, 2,777; other cattle, 16,072; sheep, 10,162; and swine, 9,836. The value of the live stock was \$1,147,681, and of animals slaughtered during the year, \$105,108.

The yearly produce of wheat was 92,609 bushels; rye, 244; Indian corn, 4,792; oats, 158,001; wool, 20,720 pounds; peas and beans, 38,005 bushels; Irish potatoes, 191,354; barley, 1,715, and buckwheat, 977 bushels. The yearly value of the orchard products was \$23,779, and of garden products for market, \$27,749. The product of butter for the year was 157,802 pounds; cheese, 12,146 pounds; hay, 4,871 tons; beeswax, 564 pounds, and honey, 5,256 pounds. The home-made manufactures of the year were valued at \$33,506.

MANUFACTURES.—There were in Washington Territory in 1860, according to the national census of that year, 52 manufacturing establishments, with a capital invested in the same of \$1,296,700, using annually raw material, including fuel, valued at \$505,000, employing, on an average, 886 male hands and 4 females, and producing yearly manufactured products valued at \$1,405,000.

POPULATION.—The census of 1860 gave Washington Territory, as it then existed, an aggregate population of 11,594, beside tribal Indians estimated at 30,000. The number of white males in the Territory in

1860 was 8,420, and of white females, 3,144; total whites, including 426 taxed Indians, 11,564. The number of colored persons was 30.

The present population of Washington is variously estimated at from 15,000 to 25,000. The truth probably lies between the extremes.

COUNTIES AND COUNTY TOWNS.—Washington Territory had, at the beginning of the year 1866, the following counties. We annex the names of the county towns, and the population of each county, according to the census of 1860.

COUNTY.	COUNTY TOWNS.	POPULATION.	COUNTY.	COUNTY TOWNS.	POPULATION.
Chehalis,		2,835	Pacific,	Pacific City,	420
Cllaham,	Port Angeles,	149	Pierce,	Steilacoom,	1,116
Olicatat,	Vancouver,	280	Sawamish,		102
Clark,		2,864	Skamania,	Cascade,	178
Cowlitz,	Monticello,	406	Snohomish,		
Island,		294	Thurston,	Olympia,	1,507
Jefferson,	Port Townsend,	531	Walla Walla,		1,318
King,	Seattle,	802	Wahkinkum,	Cathlamet,	42
Kitsap,		644	Whatcom,	Whatcom C. H.	368
Lewis,	Clatskanie,	384			

TOWNS.—Olympia, the capital of the Territory and of Thurston County, is situated at the head of Puget's Sound. It lies pleasantly under a hill, and contains from five hundred to six hundred inhabitants. The other more important towns or settlements are Nesqually, Steilacoom, New York, Seattle, Port Townsend, and New Dungeness, on Puget's Sound, and Admiralty Inlet; Pacific City, Cathlamet, Monticello, Port Vancouver, and Cascade City, on the Columbia River; Cowlitz Farms and Wabassport, on or near the Cowlitz River; Pennscove, on Whidby's Island; and Wallula, a mining center in the south-east part toward Idaho.

THE COAST AND COAST TRADE.—Washington Territory possesses great natural advantages, having a vast seaboard on the Pacific Ocean, the Straits of St. Juan de Fuca, and adjacent waters. The Columbia River and its numerous tributaries flow through the Territory from the 49th to the 46th parallel of latitude.

The commerce of the people residing on the seaboard is principally confined to lumbering, fishing, and coal-mining. Large cargoes of spars, lumber, shingles, etc., are constantly shipped to San Francisco, the Sandwich Islands, South America, China, New Zealand, and ports in Europe. Large quantities of coal are shipped from Bellingham Bay. Oysters, salmon, and other varieties of fish are also exported to a large extent.

The Columbia River forms the line of division between the State of Oregon and Washington Territory. Passing along in a northerly direction, the first place of importance on the sea-coast of Washington Territory is Shoalwater Bay, which is said to produce the finest flavored oysters on the coast. The country bordering on the Bay is settled by

men who combine the occupation of farming with that of fishing. Oysters in great quantities are annually shipped from Shoalwater Bay to San Francisco, Sacramento, Portland, and other places on the Pacific coast. Immense quantities of poles and spars are exported from this point. These, with about 30,000 bushels of oysters, make the value of the annual exports hence about \$120,000.

Passing along the coast, about thirteen miles further north is Gray's Harbor. The region about this bay is settled by people who have erected lumber and planing-mills, and built up a town near the mouth of Chehalis River, which is navigable for boats for sixty miles, and drains a country of good agricultural land. Several smaller streams also empty into the bay.

North of Gray's Harbor are the Queniult, Raft, Queets, Ohahlats, Quilcuyats, and several smaller rivers emptying into the Pacific Ocean south of Cape Flattery, which forms the southern headland of that vast expanse of water known as the Straits of St. Juan de Fuca. The entrance to this strait is about fourteen miles wide, and the distance from the entrance to Whidby's Island, its eastern boundary, is about fourteen miles. The depth of water throughout the strait may be inferred from the fact that the officers of the United States Coast Survey found no bottom in its deepest parts, even with a hundred and fifty fathoms of line.

The Straits of Juan de Fuca is the main artery for the waters of Admiralty Inlet, Puget Sound, Possession Sound, Hood's Canal, Canal de Haro, Rosario Strait, Bellingham Bay, and the vast Gulf of Georgia, extending between Vancouver's Island and New Caledonia for a distance of one hundred and twenty, with an average width of twenty miles.

Sailing along the Strait of Juan de Fuca on the south or Washington Territory shore, Neah Harbor, Clallam Bay, Port Angeles, New Dungeness, and Port Townsend are passed; thence up Admiralty Inlet into Puget Sound to Budd's Inlet, at the head of which is located Olympia, the capital of Washington Territory. From this point to the 49th parallel of latitude—the dividing line between the United States and the British Possessions—a large number of bays, harbors, and ports line the vast sheet of water extending the whole distance.

COLORADO.

COLORADO was organized as a Territory March 2, 1861, from parts of Kansas, Nebraska, and Utah, and is situated on each side of the Rocky Mountains, between latitude 37 and 41 degrees north, and longitude 25 and 32 degrees west from Washington. It is situated immediately west of the State of Kansas. Its geographical area, almost unequaled in position, is bisected from north to south by the primary Cordillera, or great mountain chain, which divides the waters of the Atlantic from those of the Pacific Ocean.

The eastern half of Colorado is occupied by an undulating plain, the western half by the stupendous Rocky Mountain ranges. The former, abounding in great rivers, is of very uniform fertility, checkered with arable and pastoral lands, alternating one with the other. It is favored with temperate seasons, mineral fuel, a salubrious atmosphere, and a fine climate. The mountains embrace every variety of structure, immense massiveness and altitude, fertile flanks of unfailing pastures, and stupendous forests. In their ever-varying scenery, no element of beauty or sublimity, of the very highest order, is wanting. In their vastness of bulk, they constitute a striking feature of the empire of the American people, there especially revealed in the grandest forms.

Such are the great advantages of climate, soil, and scenery which are presented to the eye of the observer and traveler on a superficial view. But science, and the untiring and ever-conquering energies of the American people, have developed in these mountain ranges, in the plains which spread themselves at their feet, and in the vast and fertile parks which are encircled by their flanks, a mineral and agricultural richness which the world had never previously conceived.

First and foremost of the mineral resources of the mountains is GOLD. To the extraction of this metal the energies of the people have been most successfully directed. For the first year in which labor to this end was systematically applied, gold was produced, in round numbers, to the amount of \$5,000,000. During the succeeding year the sum of \$8,000,000 was reached, and in 1863 the mines yielded about \$12,000,000. There has been a continual increase since, and hereafter, as the art of saving the precious dust is better known and developed, and the amount of labor and capital increased, it may safely be estimated that at least \$50,000,000 will be annually produced.

But, in addition to gold, the mountains, their flanks, and the parks they inclose, are rich in other mineral products. Silver, copper, lead, and iron have been discovered in largely paying quantities. Indications are abundant of the presence of cinnabar, platina, and precious stones. Bituminous coal, inexhaustible in quantity, is obtained in almost any part of Colorado.

The agricultural advantages of Colorado are quite as extensive and abundant as the mineral. The eastern portion, embracing the great plains at the foot of the mountains, and the large parks, seven in number, is abundantly watered by living streams, whose valleys afford a soil second to none the world can show for arable agriculture; while the highlands and dividing ridges are a perpetual grazing-field, where richest grass flourishes during the entire year.

Such extraordinary advantages, both mineral and agricultural, afford, as a necessary consequence, the largest and most promising field for the cultivation of all classes of manufactures and the industrial arts. A present population in Colorado of 50,000 to 100,000, and constantly increasing, located at a great distance from the markets and commercial and manufacturing towns, both of the Eastern and Western oceans, are continually demanding, and must be supplied with, all those commodities, the result of mechanical art, which have become necessities to the American people. Already this want has been felt, and the advantages of establishing manufactures understood, and already they are beginning to prove their value and establish their importance throughout Colorado.

Such, briefly and imperfectly told, are the natural advantages of Colorado.

The continental railroad, connecting the two oceans, already assuming the proportions of an undertaking actually accomplished, passes through the center of Colorado from east to west, thus placing it in a commanding position upon the road destined to become the great highway of nations.

Colorado stretches some 400 miles from east to west, by not quite 300 from north to south, containing an area of 111,700 square miles, or 71,488,000 acres. The Rocky Mountains traverse its entire length, giving rise within its boundaries to the Rio Grande del Norte, to the Colorado, the Arkansas, the Kansas, and the Platte. It is thus the central water-shed of our continent. Both Pike's and Long's Peaks are in Colorado, with the famous South and North Peaks—the former giving rise to the Arkansas, the latter to the North Platte. The Rocky Mountains, with their spurs, valleys, and forks, cover at least 40,000 square miles, or more than one-third of the entire area, presenting, for many miles of their eastern face, a bold and regular wall of naked rock, whence their name. Their two towering peaks, already named, are seen from a great distance across the gently-rolling desert on this side, affording landmarks to the dusty, weary traverser of the plains. These are the home of innumerable but fast-dwindling herds of buffalo, which, however, are generally found in the more fertile glades of Kansas and Nebraska, a hundred miles this side of the Colorado line.

Its population is rapidly increasing. Several fine towns serve as centers of supply and trade, and offer fine facilities for schools, churches, etc. The direct route from Fort Kearney to Salt Lake passes through the northern part of Colorado, and a fine road from Denver City to the overland route makes the region around Pike's Peak easily accessible. The mineral resources of Colorado are open-

ing very advantageously to operative capital. The Colorado mines differ somewhat from those of California, where placer and gulch mining permits single operatives to do a good business. The Colorado metals run in beds, mixed with quartz and pyrites, necessitating all the appliances of underground mining, crushing-mills, etc., to render the ores available. This will deter adventurers, to some extent, from settling in Colorado, but it will call in heavy capital, will raise up large communities, will compel large cultivation of the rich valleys, and thus render Colorado, with its magnificent climate, one of the best of regions for the enterprising man to settle.

PIKE'S PEAK.—The following account of this famous peak of the Rocky Mountains and its environs, is condensed from the American Cyclopaedia, published by D. Appleton & Co., New York :

Pike's Peak is in latitude 39° north, and longitude 38° west from Washington. It is named in honor of General Zebulon M. Pike, who discovered it in 1806. Its height is variously given at from 12,000 to 14,500 feet above the sea level. The ascent, which is made from Colorado City, is extremely difficult, passing over rugged hills and along the precipitous walls of narrow canons, which abound in cascades and picturesque views. In ascending, the transition is extremely abrupt from a dense pine forest to the bare, open mountain-side, with no vegetation except beds of grass among the rocks. Near the summit, blossoms of faint yellow mingled with purple spring from the ground in great profusion, so near banks of snow that one may pluck flowers with one hand and gather snow in the other. Two enormous gorges extend from the top almost to the base, one of them visible to the naked eye at the distance of 80 miles. The summit is nearly level, embracing about 60 acres, and composed of angular slabs and blocks of coarse, disintegrating granite. It affords one of the grandest views on the North American continent, extending nearly 100 miles in all directions, embracing the great plains on the east, and on the north, south, and west a vast expanse of mountains, of diverse forms and varying colors, including several transparent, sparkling lakes, and the sources of four great rivers, the Platte, Arkansas, Rio Grande, and Colorado of California. Directly west and thousands of feet below, are the South Park, a crescent-shaped section of smooth, treeless prairie, 40 miles by 15 in extent, and other fields of rich floral beauty, inclosed by rugged mountain walls. In the gorges near the summit, snow is perpetual.

The mountain has furnished the popular name for the Rocky Mountain gold region, not yet fully explored, but embracing portions of the original Territories of Kansas, Nebraska, New Mexico, Utah, and Oregon. For many years vague reports and traditions of gold in this region had been current among trappers and Indians. In 1857, a party of civilized Cherokees made the first organized attempt to explore it, but were driven back by hostile savages. In 1858, a company from Georgia and another from Lawrence, Kansas, reported that they had discovered gold in paying quantities in the valleys near the base of Pike's Peak.

On May 6, 1859, rich deposits of gold were found in the mountains on the head-waters of Clear Creek, 50 miles north of Pike's Peak, and from that day the country has been settled with great rapidity. In August, 1860, its population was 60,000, and two months later there were 175 quartz mills in the mountains, about one-half of them in operation, at an outlay of \$1,800,000. The gold yield of 1860 was estimated at \$4,000,000. In the vicinity of Clear Creek, near the original discoveries, quartz mining is the leading occupation, and the gold-bearing quartz is found in great abundance, while 100 miles further south gulch mining is largely carried on. The gold is found principally in the mountains. Its northern limit, as far as yet discovered, is in the Wind River Mountains, and its southern in the San Juan Mountains of New Mexico, more than 500 miles apart.

Silver ore is found in large quantities west of the South Park, on both sides of the dividing ridge. Iron, lead, coal, and other minerals have also been found. The auriferous quartz exist in lodes running north-east and south-west, and the geology of the region differs radically from that of California and Australia.

The climate is healthy and agreeable, and the winters are mild, though with occasional periods of two or three days in which the cold is intense, and the mercury sometimes descends to 30° below zero. Changes of temperature are much more sudden and severe than on the Atlantic coast, but lung diseases are almost entirely unknown. The elevation of the valley regions is about 5,000 feet above the sea; the atmosphere is peculiarly clear and invigorating, and so dry that fresh meat cut in strips and exposed to it will cure sufficiently without salting or smoking, to be carried to any part of the world. No rain falls except during about seven weeks of the late summer and early autumn.

The mountains are densely wooded with pine, spruce, fir, cedar, and aspen. The ascent of the dividing ridge is in many places very gentle, and near Breckinridge, waters which run to the Atlantic gush from the ground within 500 yards of springs which feed a tributary of the Pacific. Several passes through the mountains have been found, which offer no engineering obstacles to the construction of a railroad so serious as those which have been already overcome in the Alleghanias. The great American desert extends to the base of the mountains, which rise abruptly like a wall on its western border. With the exception of the narrow valleys of the streams, it consists of vast wastes of sand, destitute of tree or shrub, and characterized by numerous varieties of the cactus, aspen, withered grass, stunted shrubs, and alkaline waters: often poisonous to both cattle and men. The streams sometimes sink abruptly from view, leaving a dry bed of sand above, and run underground for many miles, when they again gush up as suddenly as they disappeared. Antelopes, wolves, prairie-dogs, and rattlesnakes abound in the desert, and elk, and grizzly and several other species of bears in the mountains.

The soil of the valleys appears to consist of pure sand; but, with ample irrigation, it produces wheat, barley, and root crops in great

abundance. Some flour is brought from Salt Lake and New Mexico, and other supplies from the Missouri River. The transportation of all the imports from 500 to 700 miles, in wagons drawn by oxen and mules, renders the expenses of living more than 100 per cent. higher than on the Missouri River. The principal tribes of Indians are the Arapahoes and Utes. The latter are sometimes hostile, but easily held in check by the whites.

The region abounds in natural features of peculiar interest, which, whenever a railway connection is obtained, must render it a popular summer resort. Among them are Pike's and Long's Peaks, the Middle, North, and South Parks, the Monument region, and numerous hot and cold springs.

The Monument region comprises a long section along Monument Creek, abounding in natural stone monuments, standing upright in picturesque and fantastic forms. The predominant shape is that of grave-stones, which, interspersed with numerous pine groves, give it the appearance of a great cemetery. Two miles from Colorado City, they culminate in the "Garden of the Gods," or "Red Rocks," which rise perpendicularly 350 feet, forming a most impressive spectacle. At one point they have been rift asunder to the base, leaving a natural gap or carriage-way. Near them are the famed boiling fountains (*Fontaine qui Bouille*), which burst up with great force, and are so strongly impregnated with soda that they have incrustated the adjacent rocks with deposits of it to the thickness of several inches. Flour mixed with their waters, without the addition of any other substance, forms peculiarly light bread, and they are alleged to possess medicinal qualities.

The Indians regard these fountains with peculiar reverence, as the abode of a deity who "troubles the waters." The Arapahoes formerly strewed the ground with tomahawks and knives, and hung the trees with quivers and moccasins, as propitiative offerings to the spirit of the place.

TOUR THROUGH COLORADO.—We are indebted for a graphic sketch of a tour through Colorado in June, 1865, to an interesting work entitled, "Across the Continent," published by Samuel Bowles and Company, of Springfield, Massachusetts. We make the following extracts:

"We passed on to and through the Great Central Desert of the Continent, stretching from the far distant north to the Gulf of Mexico, and separating, by four hundred miles of almost uninhabitable space, the agriculturally rich prairies of the Mississippi Valley, from the mineral rich slopes and valleys of the Rocky Mountains. Yet not a desert, as such is commonly interpreted—not worthless, by any means. The soil is fat, indeed, compared with New England pine plains. It yields a coarse, thin grass, that, green or dry, makes the best food for cattle that the Continent offers. It is, indeed, the great pasture of the nation. This is its present use and future profit. Now it supports the machinery of the commerce of the two great wings of the nation, that it both separates and connects. Then—when railroads shall supersede cattle and mules—it will feed us with beef and mutton, and give wool and leather immeasurable.

"The Platte is a broad, shallow, but swift river, furnishing abundant good water for drinking and for limited irrigation, but offering no possibilities of navigation—not even for ferriage. When it is too swift and strong for fording, it must be let alone, and a route on either shore kept, or the falling of the waters waited for. The soil of the valley and the plains which it crosses is not by any means mere sand, but rather a tough, cold, sandy loam, with an admixture of clay. It is too cold and dry for corn and vegetables. Wheat and barley may be raised on its best acres, with the help sometimes of a simple irrigation; but the pasture is its manifest destiny and use. There is a steady, imperceptible rise from the Missouri to the Rocky Mountains; half way we get above the dew-falling point; and here at Denver, at the base of the mountains, we are 5,000 feet above the level of the sea. The days are warm, however; the sun pours down over its shadeless level with a hot, burning power; but a cool wind tempers its bitterness, and at night the air is absolutely cold. This is the universal rule of all our Western country beyond the Mississippi Valley, and distinguishes the summers of its whole extent from those of the East.

"The valley of the Platte, through these plains, is the natural highway across the continent. Other valleys and routes have similar advantages, but in a minor degree: this unites the most, for it is central—it is in the line of our great cities and our great industries, east and west, and it is the longest, most continuous. A smooth, hard stage-road is made by simply driving over it; a railroad wants only sleepers and rails. Here and there, at rare intervals, is a gully, or dry creek, or petty stream to cross; but this, the longest and best stage-road in the world, has not to-day a quarter of a mile of the simplest bridging; and a railroad of six hundred and fifty miles would not need a mile.

"The region is substantially uninhabitable. Every ten or fifteen miles is a stable of the stage proprietor, and every other ten or fifteen miles an eating-house; perhaps, as often a petty ranch or farm-house, whose owner lives by selling hay to the trains of emigrants or freighters: every fifty or one hundred miles you will find a small grocery and blacksmith-shop, and about as frequently is a military station with a company or two of United States troops for protection against the Indians. The barns and houses are of logs or prairie turf, piled up, layer on layer, and smeared over or between with a clayey mud. The turf and mud make the best houses, and the same material is used for military forts, and for fences around the cattle and horse-yards. Their roofs, where covered, are a foot thickness of turfs, sand, clay, and logs, or twigs, with an occasional inside lining of skins or thick cloth. Floors are oftenest such as nature offers. Mexican terms prevail: an inclosure for animals is called a 'corral;' a house of turf and mud is an 'adobe,' and a farm-house, or farm, a 'ranch.'

"The devastations of the Indians last summer and fall, and the fear of their repetition, form the occasion and excuse for enormous prices for every thing now upon the plains and in the Territories on this side the mountains. The Government and stage company have paid from ten to twelve dollars a bushel for corn, all of which has to be brought up

from Missouri and Mississippi Valleys, and from seventy-five to one hundred dollars a ton for hay. Wood costs on the Plains seventy-five dollars a cord, so distant are the thin forests that furnish it; lumber, when it is used at all, which is rarely, for it must be freighted from one end to the other of the route, costs one hundred and fifty to two hundred dollars a thousand; a wagon and team of oxen (five pairs), twenty to twenty-five dollars a day; common labor, two and three dollars a day and board. And at Denver, at the end of the route, here is a specimen of the prices to-day (May 29, 1865): Potatoes, twenty-five cents a pound, or fifteen dollars a bushel; flour, fifteen and twenty cents a pound; corn, eighteen cents a pound, or ten dollars a bushel; mechanics and laborers, eight and ten dollars a day; beef, forty cents a pound, and hams, forty-five to fifty cents; girls, as house-servants, ten dollars a week.

"This whole range of mountains that divides our continent, seems crowded with veins of rich mineral ore. They run into and through the hill-sides as the bars of a gridiron—every hundred feet, every fifty feet, every twenty feet. There is no end to them in number; there is no apparent limit to their depth: one hundred feet, three hundred feet, and four hundred feet have the miners sunk shafts; but the veins of ore hold their course and their richness undiminished, oftenest enlarged.

"The chief development of these mines in this Territory lies along and up Clear Creek, and centers around its sources, some forty miles up and in the mountains west from Denver. Here, along the creek, and some narrow gulches leading into it, within the space of five miles, is gathered a population of some six to seven thousand. The principal villages are Central City, Black Hawk, and Nevada, holding rank in the order named. They are most uncomfortably squeezed into little narrow ravines, and stuck into the hill-sides, on streets the narrowest and most tortuous I ever saw in America: some houses held up in dizzy heights on stilts, others burrowed into the stones of the hill, with a 'gold' lode in the back yard, and often a well issuing from a rock of precious metals. But here these towns are thriving, orderly, peaceable, busy, supporting two of them each its daily paper, with churches and schools, and all the best materials of government and society that the East can boast of. Down in the close valleys, and up the steep hill sides to the very top, rise the mills for grinding out the gold, or the shanties that cover the shafts that lead down after the ore. Further away on the mountains, thick as ant-hills or prairie-dog holes, and looking the same, are 'lodes,' or leads of mineral, discovered, dug into, pre-empted, but not worked; hundreds, thousands of them, with fortunes or failures involved in their development, ready to be tried when the discoverer gets time or money, or turned over to a Wall street company of five millions capital.

"Forty or fifty miles below Denver, near what is called the South Park, a beautiful table-land of meadow and wood between Pike's Peak and the main range, is the second center of mineral development in Colorado; but the one upon Clear Creek is as yet the scene of the largest improvement and population. Other sections are probably as

rich in valuable ore; some are well believed to be much more so. No part of the mountains may be held wholly barren; it happens only that these localities were most attainable, and were lit upon by the early comers. What is called gulch-mining, or washing the sand and soft and pulverized rock of the valley, for the gold that ages of rains have filtered out of the rock of the mountains, is about over in Colorado. We see now only its abundant ruins in sluices, piles of worked-over earth, and the rotting, simple machinery sometimes used; yet in some of the fresher gulches this work is still profitable, and we saw pan-washings that turned out one, two, and three dollars to the pan. I have a dollars' worth of gold dust that I saw washed out from about three quarts of earth in less than ten minutes' time.

"The gross production of the Colorado gold mines is not correctly known. The United States mint reports only ten millions in all up to July 1st of last year. This puts Colorado next to California in total product, ranking her above North Carolina and Georgia in all their history; but it gives her only a small proportion of the whole production of the nation from the beginning till now—ten millions out of six hundred millions—California being credited with all but forty millions of the gross amount. Other authorities give Colorado's total production as over fifty millions, accrediting her with twenty millions in a single year (1864); but these figures are certainly as far the other way. The intelligent authority here, (General Pierce, the Surveyor-General of Colorado,) gives the following estimates: 1862, ten millions; 1863, eight millions; 1864, five millions. The falling off indicates nothing as to the real wealth of the mines—only changes in the business of producing, and the natural results of high prices.

"As the great need of business men and miners in Colorado is male laborers, so that of the house-keepers is female laborers, or 'help.' House-keeping in large families—and children do accumulate surprisingly here—is a very serious burden to wives and mothers. We go to rich dinners and beautiful teas at the homes of distinguished and wealthy citizens, and sit and eat without the company of the hostess or any other ladies. She and her friends are buried in the kitchen, and come out only to stand behind our chairs, and change the plates and pass the viands. There is an uncomfortable feeling in being thus entertained; but it is the necessity of the country, and all parties make the best of it. The price of the commonest female labor is two dollars a day and board. But the Colorado ladies have their compensations. Their husbands complain that they can get no goods, no machinery out from the East under a year from the time of ordering; that all business, all progress, must wait this long delay; yet the ladies shine in the latest fashions of millinery and dress-making. Modes that were but just budding when I left home, I find in full bloom here. How it is done I do not understand. There must be a subtle telegraph by crinoline wires, as the Southern negroes have what they call a grape-vine telegraph.

"Irrigation is a necessity of all extensive cultivation of the soil in Colorado, and the extent to which this is already being employed, and

the amount of money invested in it, are occasions of surprise. But with the far distance and competing production, and the great fertility of the soil when thus developed, it will richly pay to carry water from the mountain streams, miles on miles, from their natural courses, and spread it by little artificial rivulets over acres on acres of grains, potatoes, and other vegetables. A plan is in progress of execution for bringing a large water-course some fifteen miles around Denver, and letting it out in gentle, fructifying streams all over the town and its adjacent farms and gardens. Then will this barren wilderness of stone, house, and sand blossom like the rose; then can door-yards be green with grass, shaded with trees, and beautiful with flowers. Meantime, the people must live on canned fruits and vegetables from the East, and possess their esthetic souls in patience for the rest, in magnifying their mountain view of charming yet constant beauty.

"The extensive and common use of these imported productions of our Eastern orchards and gardens in all the country west of the Missouri River is most astonishing. They are on every table. Few New England house-keepers present such a variety of excellent vegetables and fruits as we found every-where here, at every hotel and station meal, and at every private dinner and supper. Corn, tomatoes, beans, pine-apples, strawberry, cherry, and peach, with oysters and lobsters, are the most common, and all of these, in some form or other, are frequently found served up at a single meal. These canned fruits and vegetables and fish are sold, too, at prices which seem cheap compared with the cost of other things out here. They range from fifty cents to one dollar a can of two quarts. Families buy them in cases of two dozen each, at twelve to fifteen dollars a case, while away up in Montana they are sold at only twenty-seven dollars a case.

"Colorado has four daily and four weekly papers—two each at Denver, and one each at Black Hawk and Central City, in the mining region; and though their circulation is small—some five to seven hundred each—the large prices they get for subscriptions, for advertising and printing, serve to support them all liberally.

"Let one give here the current Colorado rates of staples and luxuries: Flour, twenty cents a pound; meal, twenty-three cents; hams, fifty cents; lard, forty cents; syrup, five dollars per gallon; cheese, seventy-five cents; butter, sixty cents; brown sugar, forty-five cents; milk, fifty cents per quart; best cigars, fifty cents each; printing paper, sixty-eight cents per pound; daily paper per year, twenty-four dollars; weekly, seven dollars; brooms, one dollar; molasses, four dollars and a half per gallon; boots, fourteen dollars per pair; common labor, five dollars per day."

COUNTIES AND COUNTY TOWNS.—Colorado is divided into seventeen counties. The following is a list of the counties and county towns:

COUNTIES.	COUNTY TOWNS.	COUNTIES.	COUNTY TOWNS.
Arapahoe,	Denver.	Huerfano,	Huerfano C. H.
Boulder,	Boulder.	Jefferson,	Golden City.
Clear Creek,	Idaho.	Lake,	Oro City.
Conejos,	Conejos.	Larimer,	
Costilla,	San Luis.	Park,	Tarryall.
Douglas,		Pueblo,	Pueblo.
El Paso,	Colorado.	Weld,	St. Vrain.
Fremont,	Canon City.		
Galpin,			

CITIES AND TOWNS.—*Denver City* the capital, is the largest town in Colorado. It is situated on the south fork of the Platte River, fifteen miles from the base of the Rocky Mountains. It contains an estimated population of twelve thousand to fifteen thousand, and rapidly increasing. More than 250 buildings were erected in the city during the year 1866, many of them large brick edifices. The cost of these new buildings was estimated at \$680,000.

Golden City, the former capital of Colorado, is situated at the base of the Rocky Mountains, fifteen miles from Denver. It numbers from one thousand to two thousand inhabitants.

Central City, *Black Hawk*, and *Nevada City* are large towns among the mountains, forty miles west of Denver. They are situated in the principal mining center of Colorado, and are thriving and prosperous. The population of each is from three thousand to five thousand.

Empire City is situated on North Clear Creek, fifteen miles from Central City, among the mountains, and in a rich mining region. The population is about a thousand.

Montgomery, *Hamilton*, and *Terry* are towns of considerable importance, situated about one hundred miles south-west of Denver, among what are known as the South-western Lode Mines.

Colorado City is situated near the base of Pike's Peak, on Fontaine que Bouille, a tributary of the Arkansas River, one hundred miles south of Denver.

Canon City is one hundred and twenty miles south of Denver, on the Arkansas River. Pueblo lies south-west of Denver, one hundred and twenty miles distant, and forty miles below Canon City, on the Arkansas.

MILITARY POSTS.—Fort Garland, established in 1858, is situated near the south-west corner of Colorado, on a tributary of the Rio Grande, in the valley of St. Louis. Fort Lyon, established in 1860, is located near the north-east corner of Colorado, on the Arkansas River. Besides these are Fort Massachusetts, in the southern part, St. Vrain, in the northern, and Bent's Fort, in the south-eastern portion. The following camps were established in Colorado during the progress of our late civil war: Camp Collier, in 1862, in the northern part, on Cache la Poudre Creek, seventy-five miles from Denver, and Camp Wild, in 1861, near Denver City.

RIVERS.—The principal river in Colorado is the South Fork of the Platte, which, rising among the mountains in the northern portion,

runs through Colorado in a north-easterly direction, into Nebraska, where it unites with the North Fork. The principal branches of the South Fork, or Platte, in Colorado, are the Beaver, Bijin, Kioway, Crow, Pawnee, and Cherry Creeks. The North Fork of the Platte also rises in the northern part of Colorado, and passes into Dakota.

The Yampa or Bear River and the White River take their rise in the western part of Colorado, and flowing west into Utah, join the Green River, a confluent of the Grand. The Grand River has also its origin in the north-western portion of Colorado, and pursuing a south-westerly direction, enters Utah, in the southern part of which it coalesces with the Green to form the Colorado River. The Rio Grande rises in the southern part of Colorado and passes into New Mexico.

AGRICULTURE.—The climate of Colorado is described as corresponding to that of southern Pennsylvania and Maryland. Recent experiments in agriculture have demonstrated the fact that crops can be successfully produced in Colorado. In the report of the Surveyor-General for 1865, we have the estimate that there are not less than four million acres of arable land in the valleys and in the river bottoms that can be profitably cultivated with cereals and vegetables. The yield of grain has thus far averaged about thirty bushels to the acre. The cultivation of fruit has been but little attempted; but in all kinds of garden vegetables the yield is large and of fair quality. For purposes of grazing, the mountain slopes and plains of Colorado, having a climate and pasturage not unlike those of West Virginia, are fully equal to any portion of our country.

In the monthly report of the Agricultural Department at Washington, for November and December, 1866, we find the following in reference to Colorado:

"It is stated that in this enterprising young Territory, during the past year, one hundred and thirty-six miles of irrigating ditches have been constructed at a cost of one hundred and thirty-six thousand dollars; and that in the land office the claims and entries for the first ten months in 1865 were one hundred and forty-one thousand acres. For the same time this year the entries and claims have been two hundred and fifty-one thousand acres. These lands could only be taken by pre-emption and homestead claims, and consequently the claims are made for actual settlement."

PROGRESS OF THE MINING INTEREST.—The crude working of the Colorado mines has fully demonstrated their great wealth, and fully warrants the belief that if worked skillfully, they would prove to be among the most profitable mineral deposits in the world. A few quartz-mills were erected before the war; but the rebellion and the Indian troubles which followed so seriously interfered with mining operations, that but little comparatively has been yet accomplished. From this depression the mining interests are now rapidly recovering. The shipments of the precious metals were, therefore, small during the year 1865; yet these generally increased so that the shipments for September exceeded three times those for June. Previous to the middle of the sum-

mer only seven quartz-mills were worked; yet in October, 1865, eighteen were in successful operation. Immense sums of money have been lost in reckless speculation and unskilled efforts; but wherever reasonable care has been taken in the employment of experienced miners, a judicious investment has resulted, profitable to both capitalists and operators. The silver-mines have attracted the attention of prospectors, and, as far as worked, prove rich and extensive. Next in importance to precious metals are the coal deposits, which crop out along the whole eastern slope of the mountains from the southern border northward for a distance of two hundred miles. These deposits yield a superior quality of bituminous coal. Iron, copper, and lead also abound in connection with the precious metals. Salt is found in both the North and South Parks. At the South Park Spring, works were being erected in 1865, with a capacity to produce ten thousand pounds of salt per diem.

A gentleman residing at Golden City, writes as follows, under date of February 7, 1867:

"Colorado is proving herself the richest mineral country in the world! Gold, silver, copper, lead, and iron are produced in great quantities. In Gilpin County alone there are now twenty large mining companies in successful operation. Weekly shipments of gold, raised by these companies, are made; the aggregate since September 1st, 1866, to January 1st, 1867, exceed \$1,000,000. This includes the shipments by the banks alone, while there are large amounts remitted by private persons.

"According to the ratio of increase in the weekly shipments of gold during the last season, it is confidently believed that we will be able to send out of the Territory for the same time in the year 1867 not less than \$3,000,000; this, it must be remembered, is the net, and not the gross amount raised. Messrs. Smith & Parmelee shipped a single retort of gold, weighing 128 pounds, and worth in coin \$37,000, being the result of one month's 'clearing up.' The cost of this 'button' did not exceed \$5,000, leaving a net profit for the month of \$32,000. About September 1st, 1866, the Sensitive Company commenced operations, since which time it has declared monthly dividends of one per cent. per month in gold, on a capital of \$1,000,000. I could give numerous instances of this sort, but space forbids.

"I must not forget to mention that the mining in this Territory is quartz, or 'lode' mining; this requires machinery. Capitalists are turning attention hitherward, and invariably find the best bank for the deposit of currency is the golden lode of the 'eternal hills.'

"Coloradoans regard the future of the Territory not only *golden*, but glorious. Already the Union Pacific Railroad has stretched itself to within 280 miles of Denver, and will reach that city by January 1, 1868. This is an advantage no other "gold country" can boast of for years to come. With the reduction of the price of labor and living, the profits of mining, already highly remunerative, will be enhanced three-fold. The inexhaustible banks of coal, flowing oil-wells, strong salt springs, rich mines of gold, silver, and copper, boundless and un-

surpassed grazing lands, Colorado may well challenge the world for a parallel."

MOVEMENTS FOR THE ADMISSION OF COLORADO AS A STATE.—An act was passed by Congress, approved March 2, 1864, "to enable the people of Colorado to form a Constitution and State Government, and for the admission of such State into the Union on an equal footing with the original States." The act provided for a Convention to meet on the first Monday in July following, to form a State Constitution, which was to be submitted to the people at an election to be held on the second Tuesday of October, 1864. The act also provided that in case the Constitution should be ratified by the people, the President should issue his proclamation announcing such ratification, and thereupon Colorado should become a State of the Union without further action on the part of Congress.

Delegates were elected to a Convention, the Convention was held, a State Constitution framed and submitted to the people at a general election, as required by the enabling act. But the Constitution was rejected by the popular vote, there being, out of 6,192 votes cast, a majority of 3,152 against the Constitution.

During the following year, (1865,) a second Convention was called, another Constitution framed, and submitted to the people at a general election in September. The Constitution received the popular sanction by a small vote, there being, out of 5,905 votes cast, a majority of 155 in its favor. This Constitution provides that "every white male citizen of the age of twenty-one years and upward, who is by birth, or has become by naturalization or treaty, or shall have declared his intention to become, a citizen of the United States, according to the laws thereof, and who shall have resided in the State of Colorado for six months next preceding the election, and shall have been a resident ten days, of the precinct or election district in which he offers to vote, shall be deemed a qualified elector, and entitled to vote at the same."

Among the miscellaneous provisions of the Constitution was one submitting to the popular vote the question whether the word "white," in the above clause, should be stricken out, which was decided in the negative by a majority of 3,716 in a total vote of 4,668.

Under this Constitution, a State election was held in November, 1865, at which the following State officers were chosen: Governor, William Gilpin; Lieutenant-Governor, George A. Hinsdale; Secretary of State, Josiah H. Gest; Treasurer, Alexander W. Atkins; Superintendent of Public Instruction, Rufus K. Frisbee; Attorney-General, U. B. Holloway.

The foregoing officers were all elected for two years from the first Monday in January, 1866.

The following gentlemen were chosen Judges of the Supreme Court of the State: William H. Girslin, Allen U. Bradford, and J. Bright Smith. The Judges were required to draw lots for terms of one, two, and three years—their successors to be elected for three years.

George M. Chilcott was elected to represent the new State in Congress.

Members of a State Legislature were also chosen at the election in November. The Legislature convened at Golden City on the second Tuesday of December, 1865, and elected for United States Senators from the new State of Colorado John Evans, the Territorial Governor, and Jerome B. Chaffee, formerly Speaker of the House in the Territorial Legislature.

These Senators elect, early in January, 1866, in compliance with a joint resolution of their State Legislature, presented the papers relating to the State organization to the President of the United States, asking his influence in favor of the early admission of the State into the Union. This influence the President declined to give; but submitted the whole subject to Congress, as will appear by the following communication which he made to that body:

"I herewith transmit a communication addressed to me by Messrs. John Evans and J. B. Chaffee, as United States Senators elect from the State of Colorado, together with the accompanying documents. Under the act of Congress, approved on the 2d day of March, 1864, the people of Colorado through a Convention formed a Constitution, making provision for a State Government, which, when submitted to the qualified voters of the Territory, was rejected. In the summer of 1865, a second Convention was called by the Executive Committees of the several political parties in the Territory, which assembled at Denver on the 8th of August. On the 12th of that month, the Convention adopted a State Constitution, which was submitted to the people on the 5th of September, 1865, and ratified by a majority of 155 of the qualified voters. The proceedings in the second instance having differed in time and mode from those specified in the act of March, 1864, I have declined to issue the proclamation for which provision is made in the 5th section of the law, and therefore submit the question for the consultation and further action of Congress.

(Signed)

"ANDREW JOHNSON.

"WASHINGTON, D. C., June 12, 1866."

This document was referred in the United States Senate to the Committee on Territories, which, on the 18th of January, 1866, reported a bill for the admission of Colorado into the Union, with the Constitution adopted by her people.

This bill, which had previously been passed by the House of Representatives on the 3d of May, 1866, was passed in the Senate by a vote of 19 to 13, and in the House by a vote of 80 to 55. The bill was not approved by the President. The reason assigned for his veto were substantially as follows:

First. That the establishment of a State Government was not at that time necessary for the welfare of Colorado. The population was small—from twenty-five thousand to forty thousand—and many of these were not permanent inhabitants, but were ready to remove to other mining districts, if circumstances should render them more inviting.

Secondly. It was not certain that a majority of the people desired the establishment of a State Government. In 1864, out of a vote of 6,192, there was a majority of 3,152 against the proposed change from the

Territorial condition. In September, 1865, the question was again presented, without any legal authority, and out of 5,905 votes there was a majority of only 155 in favor of a State organization. It was not safe to recognize the illegal election as setting aside the former legal one.

Thirdly. It would be unjust to give to (say) thirty thousand people of Colorado an equal weight in the Senate with the four millions in New York, and in the Electoral College three votes to the thirty-three of New York; that is, in the choice of President to allow one person in Colorado to have as much weight as one hundred in New York. It was desirable to have something like an equality in this respect among the several States. Though for various reasons great irregularities had been allowed, in no one was it as great as in that instance.

A bill for the admission of Colorado, similar in its essential provisions to the former, was passed at the second session of the 39th Congress. This bill was vetoed by the President as the former had been. It was returned on the 28th of January, 1867, to the Senate, in which it originated, with the President's objections. These were, in general, the same as those to the bill passed at the previous session. The principal grounds, on which the President withheld his signature from the second bill were, that the population of Colorado, as appeared from an official census, was only 28,000, and that the third section of the bill, prescribing, as a condition precedent to the admission of the State, the allowing of citizens to vote without distinction of race or color, was in conflict with the legislation of the Territory and with the State Constitution under which it was proposed to admit Colorado into the Union.

DAKOTA.

DAKOTA TERRITORY was first settled by employes of the Hudson Bay Company, but is now being rapidly peopled by emigrants from the Northern and Western States. It was set off from the western portion of Minnesota when that Territory became a State in 1857, and was organized March 2, 1861.

Dakota may be said to consist of two sections nearly square in form, the north-eastern and the south-western, the former being much the larger. The north-eastern section is bounded on the north by the British Possessions, on the east by Minnesota and Iowa, on the south by Nebraska, and on the west by the south-western section and Montana. The south-western section is bounded on the north by Montana, on the east by the south-eastern section and Nebraska, on the south by Colorado and Utah, and on the west by Idaho. The south-western portion of the latter section is crossed by the great Rocky Mountain Range in a north-eastern and south-western direction.

Dakota Territory may be defined, in general terms, as lying immediately west of Minnesota and the north-western part of Iowa, and as extending from the 41st to the 49th parallel of north latitude, and from the 20th to the 34th degree of longitude west from Washington, embracing an area of country greater in extent than all New England combined with the great States of New York and Pennsylvania. It occupies the most elevated section of country between the Arctic Ocean and the Gulf of Mexico, forming, to a great extent, the watershed of the two great basins of North America—the one of the Missouri and Mississippi Rivers, and the other of the tributaries of Hudson Bay. Thus, within the limits of Dakota we find the sources of rivers running diametrically opposite; those flowing northward reach a region of eternal ice, while those flowing southward pass from the haunts of the grizzly bear and the region of wild rice, through the cotton fields and sugar plantations of the Southerner, until their waters are mingled with the waves of the gulf.

The general surface of the country east and north of the Missouri is a beautiful, rich, undulating prairie, free from marsh, swamp, or slough, traversed by many streams, and dotted over with innumerable lakes of various sizes, whose wooded margins, rocky shores, and gravel bottoms afford to the settler the purest of water, and give to the scenery of the Territory much of its interest and fascination. West of the Missouri the country is more rolling, and gradually becomes broken, hilly, and finally mountainous as the western limits are reached and terminated by the Rocky Mountains.

The mighty Missouri runs through the very heart of Dakota, and gives it nearly a thousand miles of navigable water-course, thus affording the facility of cheap water transportation, by means of which the inhabitants can bear away the surplus products of their rich, luxuriant lands to Southern markets, and receive in exchange the trade and commerce of all climes and lands.

On the Missouri, Big Sioux, Red River of the North, Vermillion, Dakota, and Niobrara are located millions on millions of acres of the richest and most productive lands, to be found anywhere within the domain of the National Government.

Dakota combines the pleasant, salubrious climate of Southern Minnesota and the fertile soil of Central Illinois. Thermal statistics and experiments prove that within the limits of the Territory are to be found both the climate and the soil necessary to produce most successfully the two great staples of American agriculture—corn and wheat. Starting from Chicago as a point, the isothermal line rises to a higher and higher degree of latitude as we proceed northward. Fort Benton, on the Missouri River, formerly in the extreme northern part of Dakota, but now included in the new Territory of Montana, possesses the same mean temperature as Chicago, Albany, and New York. The corn-producing belt of country which runs through Ohio, Indiana, and Illinois extends north and west through Iowa, and up the valley of the Missouri through Dakota.

According to Blodgett, the author of a very able and interesting

work on the climatology of the United States, the thermal capacity required for the successful cultivation of Indian corn is a mean temperature of 67° for July, and it may go a little beyond 65° for the summer. According to the same authority, the thermal capacity required for the successful cultivation of wheat is a mean temperature of from 60° to 65° during the ripening months. Statistics prove that Dakota possesses a considerable excess of the temperature required, being beyond 70°.

While Dakota is not flooded with the excessive spring rains which often retard the putting in of crops in the States south-west of it, the late spring and early summer months bring copious showers, which supply vegetation with all the moisture needed for the rapid growth which is characteristic of that region. The capacity of the Territory for raising immense herds of cattle, and for the production of large crops of corn, wheat, oats, rye, barley, buckwheat, potatoes, sorgho, melons, fruits, and vegetables demonstrates its ability to sustain a dense population.

Dakota possesses a climate especially conducive to health and longevity. Occupying an elevated position, it is free from the humid, raw, chilly weather often prevailing in the central Western States, and has a dry, bracing atmosphere, giving tone and vigor to the physical system.

Said Governor W. Jayne, in March, 1862, in his message to the first Legislative Assembly of Dakota:

"I venture the prediction that the wheat granary of this continent will yet be found in the valleys of the Red River and the Saskatchewan.

"The day is not distant when the eye which can now behold only the vast expanse of prairie, and the tall, luxuriant grass waving before the wind, will rest contented upon the farm and workshop, the school-house and church. We should bear in mind that within the last thirty years the great States of Indiana, Illinois, Michigan, and Missouri have been settled up, and that within twenty years Iowa and Wisconsin have been rescued from the possession of the roaming Indian and subdued to the usages of civilized man.

"Thus has one generation witnessed an area of country no less than ours transformed from the hunting-ground of the Indian, the scene of the chase and the war-dance, and converted and divided into six of the most populous and thriving States of the Union.

"Shall we not judge of the future by the past? As regards soil, climate, beautiful uplands, rich prairies, luxuriant bottoms, productive mountain valleys, and navigable rivers upon which to float our cereal products and commercial exchange, what section of country within the broad confines of our Republic is fairer, or lovelier, or richer, or more inviting as the home of the active, intelligent, and industrious citizen? Before a generation shall have passed, more than a million of people will be living in the valley of the Missouri alone. The Pacific Railroad will have been completed, connecting the two oceans with its iron bands. The trade with India and Japan, the commerce of the opulent

and gorgeous East, will pass through our borders on its way to the great cities on the Atlantic. By the transit of a world's commerce over a large portion of our Territory, we shall derive incalculable benefit."

COUNTIES AND COUNTY TOWNS.—Dakota is divided into thirteen counties. The following is a list of the counties and county towns:

COUNTIES.	COUNTY TOWNS.	COUNTIES.	COUNTY TOWNS.
Bon Homme,	Bon Homme.	Kittson,	
Buffalo,		Lincoln,	
Charles Mix,	Hamilton.	Minnehaha,	Sioux Falls City.
Clay,	Vermillion.	Todd,	Spring Lake.
Gregory,		Union,	Elk Point.
Hutchinson,		Yankton,	Yankton,
Jayne,			

Five of the foregoing counties, Buffalo, Gregory, Hutchinson, Jayne, and Lincoln, are attached to other counties for judicial and other governmental purposes.

TERRITORIAL GOVERNMENT.—The following was the Territorial Government of Dakota as constituted at the commencement of the year 1866. The Federal officers were: Governor, Newton Edmonds, residence at Yankton; Secretary, S. L. Spink, residence at Yankton; Surveyor-General, George D. Hill, residence at Ann Arbor, Michigan; Register United States Land-office, Nelson Minor, residence at Vermillion; Receiver United States Land-office, John W. Boyle, residence at Vermillion; Superintendent of Indian Affairs, Governor Newton Edmonds, residence at Yankton. United States Indian Agents.—For "Yankton Sioux," Major Patrick H. Conyer; for "Poncas," Major Joel H. Potter; for "Santee," Major James M. Stone; for "Goranties" and other tribes, Major Mahlon Wilkinson; for "Yankt-mais," Major Samuel N. Latta.

The salary of Newton Edmonds was \$1,500 as Governor, and \$1,000 as Superintendent of Indian Affairs; the salary of the Secretary was \$1,800; of the Surveyor-General, \$2,000 and mileage, and of the Indian Agents, \$1,500 each.

The Judges of the Supreme Court of Dakota were: Asa Bartlett, Chief-Justice, residing at Yankton; J. P. Hulder, residence at Vermillion, and William E. Gleeson, residing at Bon Homme, Associate Justices. The salary of each Judge was fixed at \$1,800. The United States Marshal of the Territory was Laban H. Litchfield, residence at Yankton; United States Attorney-General, James Christian, residence at Yankton; Clerk of Supreme Court, Moses K. Armstrong, residence at Yankton. Clerks of District Courts and Registers in Chancery.—For the First District, John W. Boyle, residing at Vermillion; for the Second District, Moses K. Armstrong, residing at Yankton; for the Third District, T. James Gleeson, residing at Bon Homme.

The Territorial Officers were: Auditor, Joseph R. Hanson, residence at Yankton; Treasurer, Isaiah T. Gore, residence at Brule Creek P. O.;

Superintendent of Public Instruction, James S. Foster, residence at Yankton.

The Delegate to the Thirty-ninth Congress from Dakota is Walter A. Burleigh, who resides at Bon Homme. Governor Edmonds has been succeeded by A. J. Faulk, who is the present Governor of Dakota Territory.

THE CHURCH BUTTE.—Butte is a French word, signifying an isolated hill or mountain, and is applied to a solitary mountain rising out of a plain. On the Pacific slope in Dakota, and on the stage route to Fort Bridger, is one of the most curious specimens of natural architecture, called the "Church Butte." It is described by a traveler as looming up from the level plain a large, ill-shaped hill, seeming a marvelous counterfeit of a half-ruined gigantic old cathedral. Porch, nave, transept, steeple, carryatides, monster animals, saints, and apostles, with broken columns, tumbled roof, departed nose or foot, worn and crumbling features, are all in their places, a little out, but recognizable and nameable. Our traveler walked around it for half a mile, and calls it one of the great natural wonders of the continent.

Flowing out of the Butte on all sides is a thick and solid stream of fine stone and clay, refining, pointing, carving, chiseling, but gradually and surely leveling. The high winds, by the sand they take up and blow in right lines and in curves, do a share in this great work of fantasy and destruction. Sand showers and sand whirlpools are of almost daily occurrence, loading the atmosphere with sand, carrying it every-where, among rocks, into houses, through walls, into the bodies of every thing animate and inanimate, keeping up the work of destruction and reconstruction.

There is a window among the mountains of Colorado that a single sand-storm of this sort has changed from common glass into the most perfect ground glass, and fantastic architecture of a similar creation is common among the rocks of the country from the North Platte to Fort Bridger.

REMARKABLE FOSSILS.—There is a singular tract of land or valley known as the "Mauvaises Terres," or "Bad Lands," lying between Fort Laramie and the Missouri River, about thirty miles wide and eighty or ninety long, with a thin, sterile soil, covered only with a scanty growth of grass. Recently Dr. Hayden arrived in Philadelphia with a large amount of fossils of extinct animals, collected during an expedition to the "Bad Lands" of Dakota, for the Smithsonian Institute at Washington and the Philadelphia Academy of the Natural Sciences. These fossil remains were discovered in the "Bad Lands" some time ago, by mere accident. A fur-trader named Culbertson, residing in Chambersburg, Pennsylvania, was attracted by their curious appearance, and took some specimens to his home as a matter of interest to his family. These were seen by scientific men, who at once perceived their rarity and value. Subsequently the naturalists accompanying the Government expeditions to lay out wagon roads, brought home large quantities of these fossils, and the great interest they excited induced the fitting out of the private expedition of Dr. Hayden. The specimens

brought home by this expedition are all remains of extinct species of animals, and belong to an age of the world of such remote antiquity that no traces of mankind have been found in the geological formations of that period.

The rocks in which these remains are found were evidently once the muddy shore of some immense fresh-water lake, the extent and boundaries of which can not now be defined; and as these animals perished, their bones lay undisturbed in the mud till petrefaction prevented their final destruction. In one piece of rock can plainly be seen the trail left by some marine animal in the original mud. In another specimen there is seen the skull, with the jaw wide open, as it evidently lay loose in decay, when the waves washed up the mud in the jaw and prevented its closing. There are also fresh-water turtles of all sizes up to a very large one. These indications leave no room to doubt that the places in which these fossils are found must have been the lines of the great lake.

There are also specimens of the fossil remains of an extinct species of camel, showing that after the upheaval of the earth had destroyed the lake, the bottom of the latter was converted into one vast arid plain, upon which only such animals could exist as are found in the desert regions of the Old World. Then, next in order, are specimens of extinct species of ruminating animals, from which it appears that the once arid plain had become covered with luxuriant grass. From the number of these latter specimens it is evident that these ruminating animals must have multiplied into herds, rivaling those of the buffaloes now seen. Perhaps the most curious of these are the remains of several species of the horse, the smallest being about the size of an ordinary setter dog, and the largest about three times that size.

Among the specimens are several species of carnivorous animals now extinct, evidently designed by nature to prey upon those immense herds of ruminants and prevent their increase. Among these are varieties of the tiger and the rhinoceros. As both the tiger and the camel are peculiar to tropical regions, some may think it strange that they should be found in these high latitudes. But there are also among the specimens fossil remains of a species of the elephant, as well as of the tapir, and the fossil plants are all tropical. Palm-trees once grew upon the shores of that great lake, and several species of the ammonite sailed their barques upon its waters. Yet, in all this immense wilderness, no trace of man is found, and there nature must have rioted in luxuriance without the footfall or the voice of any being created with intelligence above the brute.

RIVERS.—The Missouri River enters from Montana the north-eastern section of Dakota, at its north-western corner, and passing through that section to its south-east corner in a general south-eastern direction, separates the north-eastern portion of Nebraska from the south-eastern part of Dakota. The following affluents of the Missouri are partly or wholly in the north-eastern section of Dakota in the order named, beginning with the most northern: Yellow Stone, Little Missouri, Great Knife, Heart, Cannon-ball, Grand, Owl, Big Cheyenne, White, Riviere

a Jaques, and Big Sioux. The last-named forms, for a short distance, the boundary between Dakota and Iowa. In the south-western section of Dakota are the Madison and Gallatin, branches of the Missouri; Big Horn, Tongue, and Powder Rivers, branches of the Yellow Stone; Owl Creek and Wind River, affluents of the Big Horn; and the North Fork of the Platte River, which rises in Colorado in the North Park of the Rocky Mountains, and running north into Dakota, curves to the north-east and then to the south-west, and passes into Nebraska. Among the affluents of the North Fork, in Dakota, are the Sweet Water and Medicine Bow.

The Niobrara, Eau qui Court, Rapid or Running Water River, which has its course mostly in the northern part of Nebraska, running eastwardly into the Missouri, forms in part the boundary between Dakota and Nebraska. The Kaha Paha, or Turtle Hill River, an affluent of the Niobrara, also forms a small portion of the same boundary.

The Green River, a confluent of the Colorado, coming down from the mountains in Idaho, passes through the south-western corner of Dakota in a southerly course toward Utah.

The Red River of the North, which has its source in a collection of small lakes in Central Minnesota, and flows south-west, then north-west, and then nearly north, forms, for a considerable distance, the boundary line between Dakota and Minnesota. The Cheyenne, an affluent of the Red, is in the north-eastern part of Dakota.

TOWNS AND SETTLEMENTS.—*Yankton*, the capital of Dakota, is situated on the Missouri River, sixty miles from the Iowa line, and due west from Chicago.

Among the other principal settlements are Big Sioux Point, Elk Point, Bruley Creek, Vermillion, Bon Homme, Greenwood, Fort Randall, and Dakota City.

Fort Laramie is an important military post and settlement, on the North Fork of the Platte River, not far from the Nebraska line. It is in latitude $40^{\circ} 12'$, and longitude $104^{\circ} 47'$.

THE FORT KEARNEY MASSACRE.—An account of the massacre of United States soldiers by Indians, at or near Fort Philip Kearney, on the 21st of December, 1866, is given in the following letter, dated at Fort Reno, Dakota Territory, January 8, 1867:

"Herewith, I give you additional and accurate information of the terrible calamity that befel the 18th United States Infantry, on the 21st day of December, 1866, at or near Fort Philip Kearney, in Dakota Territory. On that ill-fated day the Indians made an attack on the wood-train of the aforesaid post. Colonel H. B. Carrington, the commandant, sent out re-enforcements to assist the guard of the wood train. The Indians numbered fifty, the re-enforcing party numbering eighty-one men, including officers and citizens. As soon as the Indians perceived that our men were in close quarters they began to retreat. Our men followed them. The Indians entered a ravine, our men still following. The Indians had two thousand warriors concealed in the ravine. The troops were permitted to enter the narrow defile, until they were carefully and hopelessly surrounded. Then commenced one of the most terrible hand

to hand fights ever recorded in the history of Indian warfare. Our eighty-one whites repulsed two thousand Indians in three successive charges; but the fourth charge was too much for them. Owing to the overwhelming numbers and disadvantageous ground, our men could sustain themselves no longer. They were killed and scalped to a man. Not one was left to tell the tale of blood. The post was too weak to send assistance to these poor fellows. They were horribly mutilated. There was but one eye-witness to this fight, Dr. Hines, he being at a distance from those men engaged. He states that our men fought desperately. The Indians kept a hundred of their men busy carrying off their dead and wounded. It is the supposition that the loss of the Indians amounted to four hundred men, killed and wounded. This fact, however, is not easily ascertained, as they carry off their dead and wounded on purpose to keep them from being seen or the number known.

ARIZONA.

THE tract of land purchased from the Mexican Government by Mr. Gadsden, under the treaty of December 30, 1853, and commonly known as Arizona, formed a part of the Mexican State of Sonora. It was about 460 miles in length with an extreme breadth of 130 miles, and contained nearly 40,000 square miles, or 25,600,000 acres.

The new Territory of Arizona embraces all that purchase—the portion lying east of the 32d degree of longitude west from Washington excepted—and also a part of Western New Mexico, sufficient to constitute an area of 120,912 square miles, or 77,383,680 acres—a district nearly two and one-half times as large as the State of New York.

It is included within the following parallels and boundaries: Commencing at a point where the 32d degree of longitude west from Washington intersects the 37th degree of north latitude; thence south on said degree of longitude to the boundary line between the United States and old Mexico; thence west on said boundary line to the boundary line of south-eastern California; thence north on said boundary line to the 37th degree of north latitude; thence east on said parallel of north latitude to the place of beginning.

The locality of this broad area presupposes great metallic wealth. The mountain ranges are a prolongation of those which, southward in Sonora, Chihuahua, and Durango, have yielded silver by millions for centuries past, and which, northward in Nevada, are now amazing the world by their massive returns of the precious ores. The general direction of the mountains and veins is north-west and south-east, and there are numerous parallel ranges which form long valleys in the same direction. These and the broad and level bottoms of the rivers, which may be easily and cheaply irrigated by acequias, or artesian wells, under which

treatment the soils return an immense yield, and are independent of the seasons, produce, so far as tested, every variety of grain, grass, vegetables, fruits, and flowers. While it has much parched and desolate country, no mineral region belonging to the United States has, in proportion to its extent, more arable, pastoral, and timber lands.

Of the mineral deposits, it is enough, in a general view, to say that in gold, silver, copper, and lead no portion of the world is believed to be so rich. If a tithe of the lodes lately found yield as they promise, to say nothing of the old and confessedly rich mines, some of which were worked two centuries since, the return will be beyond calculation, and more than enough to confirm the reports of the early Jesuit explorers, of the marvelous wealth of the land to which Cortez came for gold.

The climate, considered either in its relation to health and longevity or to agricultural and mining labor, is unsurpassed in the world. Disease is unknown, and the warmest suns of the Gila and Colorado River bottoms are less oppressive and enervating than those of the Southern States. The proportion of fine weather is greater than in any other part of the world.

Soon after the conclusion of the Gadsden treaty, the few American citizens in the Territory urged upon Congress the necessity of its separate organization. On the 17th of December, 1857, Mr. Gwin, of California, introduced into the Senate of the United States a bill to organize the Territory of Arizona. The Territory which was to be divided into four counties, to be named Jefferson, Washington, Jackson, and Buchanan, embraced very little more than the Gadsden purchase. Mr. Gwin's bill, which was very elaborate in detail, was defeated by a decided vote.

On the 22d of November, 1859, Mr. Davis, of Mississippi, also introduced into the Senate a bill to provide a temporary government for the Territory of Arizona. It was a shorter bill than Mr. Gwin's, and the boundaries proposed were those of the Gadsden purchase; but it shared the fate of its predecessor.

Mr. Watts, of New Mexico, on the 23d of December, 1861, introduced into the House of Representatives a bill to provide a temporary government for the Territory of Arizona, and for other purposes, which, after long delays, was at length, with a few amendments, passed by both Houses of Congress. On the 24th of February, 1866, it received the approval of President Lincoln and became a law.

In March, 1863, the President made the following appointments of officers for the Territory: Governor, John A. Gurley, of Ohio; Secretary, Richard C. McCormick, of New York; Chief Justice, John N. Goodwin, of Maine; Associate Justices, William T. Howell, of Michigan, and Joseph P. Allyn, of Connecticut; District Attorney, John Titus, of Pennsylvania; Marshal, Milton B. Duffield, of California; Superintendent of Indian affairs, Charles D. Poston, of Kentucky. These appointments were all confirmed by the Senate, then in extra session.

On the 26th of May following, Levi Brashford, of Wisconsin, was

made Surveyor-General. In July Mr. Titus was made Chief-Justice of Utah, and Alman Gage, of New York, was appointed in his place District Attorney for Arizona. Mr. Gurly died on the 18th of August, and on the 21st of that month John N. Goodwin was appointed to the vacant Governorship. Mr. Goodwin's place as Chief-Justice, was at the same time filled by the appointment of William F. Turner, of Iowa.

The officers entered the Territory on the 27th, and the government was formally inaugurated at Navajo Springs, forty miles west of Zuni, on Tuesday, the 29th of December, 1863. Fort Whipple had been established a month previous to the arrival of the Territorial officers, for the protection of the newly-discovered mining district.

The Governor issued a proclamation on the 9th day of April, 1864, dividing the Territory, as required by the organic act, into three Judicial Districts, and assigning one of the judges to each district. The court in the First District was to be held at Tucson, and in the Second District at La Paz. Prescott was afterward designated as the place for holding the court in the Third District.

At the first election held in the Territory, on the 26th of May, 1864, a delegate to Congress and members of the Legislative Assembly were chosen. Charles D. Poston, then Superintendent of Indian Affairs, was chosen delegate.

On the 26th of September following, the Legislature convened at Prescott, a town which had been laid out in the preceding June, and organized by the election of Coles Bashford as President of the Council, and W. Claude Jones as Speaker of the House. The Legislature continued in session until the 10th of November following, devoting its time mainly to the adoption of a code of laws unusually thorough and complete. The Territory was divided into four counties, each named after a leading tribe of friendly Indians, namely: Pima, Yuma, Mojave, and Yavapai. At an election held in September, 1865, at which 1,343 votes were cast, Governor Goodwin was elected delegate to Congress.

Mr. Gadsden, in his negotiations for the purchase of Arizona, made strenuous efforts to secure a strip of country as far south as Guyamas; but he was not sustained by Congress, and thus the most important feature in the treaty, a post on the Gulf of California, was omitted. The United States found itself in possession of a country which it was impracticable to reach except across extensive and inhospitable deserts, and over vast ranges of mountains, many of them covered with perpetual snow, or by means of a balloon.

At the period of its purchase in 1853, Arizona was practically a *terra incognita*. Hunters and trappers had explored it to some extent; but their statements of its resources and peculiarities were of a vague and marvelous character, and not altogether reliable. Few people in the United States knew any thing about it, save the curious book-worms who had penetrated into the old Spanish records. An impression prevailed that it was a worthless desert, without sufficient wood or water to sustain a population of civilized beings, and for the most part destitute of any compensating advantages. Mr. Gadsden was ridiculed for his purchase, and it was very generally believed that

Congress, in expending ten millions of dollars for such an arid waste, had in view some ulterior project of extension, based upon the balance of power between the Northern and Southern States.

The newly acquired territory was inhabited almost exclusively by savage tribes of Indians, from whose ravages the Texans and Mexicans had long suffered. With the view of preventing these depredations, and ascertaining the facts in regard to the new purchase, various expeditions were organized, and the newly acquired territory explored in the years 1853, '54, '55, and '56. In 1857 companies were formed for the purchase and development of the silver mines reported to exist in the Santa Rita, Cerro Colorado, and Arivaca Mountains.

In August and September, 1857, the San Antonio and San Diego semi-monthly stage line, under the direction of I. C. Woods, was established. This continued till the Butterfield semi-weekly line was put upon the route, in August, 1858, under a contract of six years, with the Postmaster-General, at \$600,000 a year. It was one of the grand achievements of the age to span the continent by a semi-weekly line of stages, under bonds to perform, by the sole power of horse-flesh, a trip of nearly two thousand five hundred miles within the schedule time of twenty-five days. Few believed it could be done; and when the vast deserts through which the route lay, and the hostile tribes of Indians that inhabited them, are taken into account, it is a marvel that it was not only a success but a triumph. There was no failure from the beginning to the end—from St. Louis to San Francisco. The usual time was from twenty to twenty-two days; and on the occasion of the transmission of a Presidential message, the entire trip was actually made within sixteen days.

From 1857 to 1860 a large amount of capital was expended in transporting and erecting machinery, and developing the silver mines south of Tucson; but in consequence of the inaccessible nature of the country, and the high rates of duties levied upon all importations through Sonora, these enterprises were carried on at great expense and under extraordinary difficulties. Boilers weighing six thousand pounds and heavy engines had to be transported in wagons from Lavaca in Texas to the Rio Grande, and thence across the continent to the silver regions, a distance of twelve hundred miles. The roads were almost as nature had made them, rough and rocky, abounding in ruts, pitfalls, and heavy sands, and every mile of the way from the Rio Grande was beset with dangers. Fierce and barbarous Indians lurked behind the rocks and in the deep arroyas, ever on the alert to plunder and murder the little bands of white men who toiled wearily through the inhospitable desert. The sufferings of these hardy adventurers were almost without a parallel in the history of human enterprise. Hunger and thirst, and burning suns and chilling nights, were among the least of the trials to which they were subject; sudden death from hidden foes, or cruel and prolonged torture, stared them in the face at every step. The wayside was lined with the bleached bones of unfortunate men who had preceded them, straggling parties who had fallen victims to the various perils of the journey.

When, after weary months of toil and suffering, the jaded teamsters arrived in Arizona with their precious freight—now literally worth its weight in silver—they found no established homes, no prosperous communities of families to greet them, but a country as wild as that through which they had passed, almost desolated by the ravages of the Apaches. For three centuries these Bedouins of the desert had continued their depredations upon stock, robbing the ranches, killing the rancheros, and harassing emigrant parties. No industry could prosper under their malign influence. The whole State of Sonora was devastated and the inhabitants in a starving condition. Arizona possessed at least the pretense of military protection. It soon became infested with the refuse population of Sonora, the most faithless and abandoned race, perhaps, on the face of the earth. What the Apaches left undone in the way of murder and robbery they seldom failed to complete, and, indeed, were regarded with more distrust by respectable citizens than even the barbarous Indians.

Nor was this all. The most desperate class of renegades from Sonora and California found Arizona a safe asylum from arrest under the laws. The Vigilance Committee of San Francisco did more to populate the Territory than the silver mines. Tucson became the head-quarters of vice, dissipation, and crime. It was probably the nearest approach to Pandemonium on the North American continent. Murderers, thieves, cut-throats, and gamblers formed the mass of the population. Every man went armed to the teeth, and scenes of bloodshed were of every-day occurrence in the public streets. There was neither government, law, nor military protection. The garrison of Tucson confined itself to its legitimate business of getting drunk or doing nothing. Arizona was, perhaps, the only part of the world under the protectingegis of a civilized government, in which every man administered justice to suit himself, and where all assumed the right to gratify the basest passions of their nature without restraint. It was literally a paradise of devils. Under such circumstances, it is not a matter of surprise that the progress of the country was slow. It was not a place for honest workmen or for families. Good people feared to go there. The newspapers were filled with accounts of bloody affrays, robberies, and Apache raids. Yet, despite of all these drawbacks, men of enterprise began to learn the great natural resources of the Territory. The silver mines of Santa Rita and Cerro Colorado attracted attention as they became developed, and in 1860 Arizona seemed in a fair way of receiving a rapid increase of population, and obtaining through Congress what it had long needed—a territorial form of government.

While questions vital to the interests of Arizona were pending in Congress, public attention was attracted in another direction. The rich mineral discoveries in Washoe created a sensation throughout the length and breadth of the land. In the full tide of this excitement, Arizona, neglected, suffering, and almost forgotten, received the heaviest blow of all. The rebellion broke out in April, 1861. The Butterfield overland mail-line was stopped at the same time, in view of the dangers that threatened it, and an act of Congress was passed changing

the route. During the month of July, the only Federal troops in the Territory abandoned it, and marched from Forts Breckinridge and Buchanan to Cook's Springs, where they learned the Texan rebels were coming. Without waiting to ascertain the number or prepare for defense, they burned all their wagons, spiked their cannon, and packed their provisions on mules over the mountains to Fort Craig. There were four companies, numbering altogether four hundred and fifty men. They had heard of the surrender of Fort Fillmore, toward which they were marching, and this caused them to take a different route. At Fort Fillmore five hundred Federal troops of the regular army surrendered to about two hundred and fifty renegade Texans, ragged, undisciplined, poorly armed, and badly equipped. A scattered company of these roving bandits, under the command of the guerilla chief Captain Hunter, numbering about one hundred, reached Tucson on the 27th of February, 1862, and took possession of the place. Most of the inhabitants had fled to Sonora for safety, or stood ready to join the rebels.

Hunter and his party held possession of the Territory, advancing as far as the Pimo villages, and even threatening Fort Yuma, till the advances of the California column in May, when they retreated to the Rio Grande. The few citizens and traders who remained loyal to the Government, and the managers and workmen employed at the mines, being thus left at the mercy of lawless desperadoes, roving bands of Apaches and Sonoranians, fled from the country as fast as they could procure the means of escape. Many of them were imprisoned, and some were murdered. The hostile Indians, ignorant of our domestic disturbances, believed they had at length stampeded the entire white population. On the public highways, they fell upon small parties and slaughtered them. It was their boast, and still is their belief, that they had conquered the American nation. The Sonoranians, greedy for plunder, rushed in from the borders by hundreds, and commenced ransacking the mines, stealing the machinery, and murdering the few employes that remained. At Tubac, the head-quarters of the Arizona Mining Company, the Apaches besieged the town on one side, while the Sonoranians lurked in the bushes on the other. Twenty men held it for three days, and finally escaped under cover of night. There was nothing left. The troops had burned all the stores, provisions, and groceries, public and private, that they could lay hands upon, tore down the mill at Tucson, burnt the cannon, and destroyed Government stores at Breckinridge and Buchanan worth probably half a million of dollars.

From that date to the session of the 37th Congress, Arizona remained without a Territorial organization. Few people were left in the country, and there was no protection to the mines. They were abandoned to the plundering Sonoranians, who stole the ore and destroyed the machinery. The ranches were in ruins; south and east of Tucson there was not a single inhabited spot within the boundary lines.

From the foregoing facts, it will be admitted that there were good

reasons why Arizona had failed to attract a population. With wonderful resources and a climate equal to that of Italy, it had suffered a series of misfortunes almost unparalleled in the history of our Territorial possessions. Two great obstacles to the prosperity of the country existed, and still exist—difficulty of access, which can be chiefly remedied by a port on the Gulf of California, and the hostility of the Apache Indians, for which there seems no effectual remedy short of extermination.

STORY OF THE OATMAN FAMILY.—To the lively narrative of J. Rosse Browne, entitled "A Tour Through Arizona," and published in "Harper's New Monthly Magazine," in 1864-65, we are indebted for most of the preceding sketches, and many of those which follow. Mr. Browne relates, among others, the following incident, which shows, as well as any thing else that could be offered, some of the causes which so long retarded the progress of Arizona:

"Early in January, 1851, Mr. Royse Oatman and his family entered that portion of the New Mexican Territory now called Arizona, in company with an emigrant party of which he was a member. Originally the party numbered some eighty or ninety persons, but disagreements had diverted them during the journey. Mr. Oatman and his friends took the Cook and Kearney route from the Rio Grande, with a train consisting of eight wagons and some twenty persons. After a series of continued hardships and disasters, they reached Tucson, entirely destitute of provisions, their stock broken down and most of them unable to proceed. At this point the lands were good, and inducements were offered them to remain awhile for the purpose of recruiting.

"The families of Oatman, Wilder, and Kelly resolved to push on, in the hope of being able to reach California, of which they had heard glowing accounts. They were very poorly provided for the journey, but to remain with their large families under the discouraging prospect of supplies from crops not yet in the ground, seemed to them almost certain to result in starvation. With their jaded teams and a slender stock of provisions, they pushed forward across the ninety-mile desert, and arrived about the middle of February at the Pimo villages, where they hoped to procure fresh supplies. It was a bad season for the Pimos. Their grain had nearly given out, and they had little or none to spare. Wilder and Kelly, however, concluded to remain, in consequence of some bad accounts of Indian depredations on the road to Fort Yuma. Mr. Oatman saw nothing but utter destruction before him if he tarried among the Pimos, and he was greatly embarrassed what to do. His stock had been reduced to two yoke of cows and one of oxen, and were so jaded after the long journey from the Rio Grande that it was not probable they would hold out much longer. Nearly two hundred miles of a desert country lay between the Pimo villages and Fort Yuma, and beyond the Colorado there was still a terrible desert to pass before they could reach the southern counties of California.

"While suffering the tortures of anxiety and suspense, with the

gloomiest prospect if they remained, a Dr. Lecount, who had extensively explored the Pacific coast, arrived from Fort Yuma and reported the route safe. He had seen no hostile Indians, and had heard of no recent depredations on the way. Encouraged by this information, Mr. Oatman determined to push forward at once for California, and accordingly, on the 14th of March he set out with such slender stock of provisions as he could procure. Traveling for several days under great difficulties, his family on the verge of starvation, his cattle scarcely able to drag the wagon, he was overtaken by Dr. Lecount and a Mexican guide at a point below the Big Bend of the Gila. It was evident from the exhaustion of his team that he would be unable to reach Fort Yuma without assistance. Dr. Lecount agreed to hurry on as fast as possible and send back assistance from the fort, which was still distant about ninety miles. The first night beyond the Oatman camp an attack was made by the Indians upon Lecount and his guide, and their animals stolen. Left on foot, without any means of subsistence, they were compelled to hurry on or starve. The Mexican was sent ahead to procure assistance. Lecount saw no alternative but to push on after his guide. He left a card, however, conspicuously fastened to a tree, stating about what had occurred, and warning the emigrant party behind to be on the lookout for the Apaches. Although the Oatmans camped at the same spot, they failed to see the card, or, as some suppose, Mr. Oatman saw it and concealed it from his family, in order that they might not be uselessly alarmed.

"On the 18th of March they spent a dreadful night on a little sand island in the Gila River. A terrible storm blew the waters up over them; their scanty supply of provisions was damaged, their blankets and clothing wet through, and the starving animals driven nearly frantic with fear. It was a wild and desolate place, many days' journey from any civilized abode. Hitherto Mr. Oatman, naturally a man of sanguine temperament, had borne every disaster and braved every danger cheerfully, and without flinching, but the presentiment of some terrible doom seemed to have fallen upon him at this place, and he was seen by some of the family to shed tears while sitting in the wagon. The next day they proceeded but a short way, over a very rough mesa, when the jaded animals utterly refused to move. It was impossible to urge them on with the loaded wagon; their strength was spent, and the faithful creatures seemed ready to lie down and die. By unloading the wagon, and pushing the wheels from time to time, the distressed emigrants succeeded at length in getting upon a narrow flat, bordering on the river, where they halted for the purpose of recruiting.

"Crossing an arroya, or dry bed of a creek, near the bottom of the mesa, and passing through some dense thickets of mesquit and ococchilla, the struggling family found themselves at the foot of a rocky bluff, more difficult of ascent than any they had yet attempted. Again they unloaded the wagon, and for hours they toiled to get their packs and wagon up the hill. To one who has passed over the road, even in its present improved state, it seems marvelous that they ever succeeded in making the ascent, weak and dispirited as they were; but success at

length crowned their efforts, and they sat down to rest upon the edge of the precipice after their labors.

"Mr. Oatman was greatly dejected. It was observed by his family that he looked anxiously down the road over which they had passed, and that he never before seemed so utterly despondent. The sun, which had blazed upon them fiercely all day, was just setting. They were beset by difficulties. Before them lay a vast desert; behind and to the right a wilderness of mountains. It was starvation to stay, and almost inevitable disaster to go forward. Mrs. Oatman, the noble wife and mother, always patient, hopeful, and enduring, busied herself in attending to the wants of her children, and in uttering words of encouragement to her husband. He, however, seemed utterly overwhelmed with gloomy forebodings, and continued to look back upon the road till, suddenly, an expression of indescribable horror was observed in his face, and the next moment a band of Indians was seen leisurely approaching along the same road. The children perceiving instinctively that their father—to whom they had always been accustomed to look for protection—was agitated by no ordinary emotions, became alarmed; but he succeeded by a strong effort in maintaining an appearance of composure, and told them not to be afraid, that the Indians would not hurt them. It was a favorite theory of his that misconduct on the part of the whites was the cause of all trouble with Indians, and that by treating them generously and kindly they would not prove ungrateful.

"When the Indians came up, Mr. Oatman spoke to them kindly in Spanish, and motioned to them to sit down. They sat down, and asked for tobacco and pipes, which he gave them, and they smoked awhile in token of friendship. They then asked for something to eat. Mr. Oatman told them his family were nearly starving, that they had a long journey before them, and could ill spare any portion of their scanty stock. However, he gave them a little bread, and said he was sorry he could not give them more. After this they stood off a little and talked in a low tone, while Oatman set to work to reload the wagon. It was observed that the Indians looked anxiously down the road, as if expecting some approaching party. Suddenly, with a terrific yell, they jumped in the air, and dashed with uplifted clubs upon the doomed family. Lorenzo, a boy fourteen years of age, was struck on the head, and felled to the earth at the first blow. Mrs. Oatman pressed her youngest child to her bosom, and struggled with a mother's heroic devotion to save it, shrieking in piercing accents, "Help! help! Oh, for the love of Heaven, will nobody save us?" A few blows with the murderous clubs quickly silenced the poor mother and her babe; and in less than a minute the whole family, save Lorenzo, Olive, and Mary Anne, were lying dead, or moaning in their death struggles upon the ground. Olive, a girl sixteen years of age, and Mary Anne, a frail child of eleven, were dragged aside and held in the iron grasp of two Indians. Lorenzo, the boy, was stunned by the crushing blows which had fallen upon his head, and lay bleeding by the edge of the precipice. In his narrative, he states that he soon recovered his consciousness, and

distinctly heard the yells of the Apaches, mingled with the shrieks and dying groans of his parents. The savages, seeing him move, rifled his pockets, and cast him over the precipice. He must have fallen twenty feet before he struck the rocky slope of the mesa. That he was not instantly killed, or maimed beyond recovery, seems miraculous. Sounds, he tells us, grated upon his ears, gradually dying away, and then he heard strains of such sweet music as completely ravished his senses.

"Thus he lay till reason became gradually restored, when, with great difficulty, he crept back up the hill. The sight of the dead bodies of his parents, brothers, and sisters lying scattered about by the broken wagon, mutilated and bloody, was too much for him, and for awhile he felt like one laboring under some horrible phantasm. He knew that his sisters, Olive and Mary Anne, had been taken captive, and the fate to which they were doomed was even more dreadful to him than the sight of the murdered family. Sick at heart and faint from the loss of blood, he turned away and crept toward the river. A burning thirst consumed him. He thought he was dying. With incredible difficulty he reached the river, where he satisfied his thirst, and slept a few hours. Thus refreshed, he resolved upon an attempt to reach the Pimo villages, which, though distant a hundred miles, was the nearest place known to him where he could hope to procure relief. During the next two days he made his way along the road, sometimes walking, sometimes creeping on his hands and knees, resting every few minutes when he could procure the friendly shelter of a bush; at times delirious, and constantly haunted by the horrible dread that he might fall into the hands of the Indians. He grew weaker every mile from hunger, thirst, and fever, and, worn down at last, he lay down to die. A strange noise aroused him from his stupor. Upon opening his eyes, he found himself surrounded by wolves, panting and lapping their tongues for his blood. He shouted as loud as he could, and threw stones at them; the nearest he struck with his hand. Rising again, he pushed on, the wolves following closely at his heels. About noon of the second day, as he was pushing through a dark canon, two Pimo Indians, riding on fine American horses, appeared before him, and, seeing so strange an object, fixed their arrows and raised their bows to shoot. He addressed them in Spanish, telling them that he was an American, and begging them not to kill him; upon which they lowered their bows, and manifested signs of interest and sympathy. When they learned what had happened, they gave him some ash-baked bread and a gourd of water. Then they told him to await their return, and rode away. He staid a little while, but, fearful of treachery, started on again. Wandering along the road till he came out of the canon and overlooked the plain, he discerned some moving objects in the distance, which he speedily recognized as white-covered wagons. He knew they must be Americans. Overcome by emotion, he sank to the ground unconscious of all his sufferings. Within an hour or less he was aroused by the voice of Wilder, saying, "My God! Lorenzo, what has happened?" The wagons contained the families of Wilder and Kelly, who had started for Fort Yuma. Next day the unhappy sufferer was safe among the Pimos.

The emigrants halted a few days until he gained sufficient strength to join them. He traveled with Wilder to Fort Yuma, which they reached after a journey of eight or ten days.

"As soon as the Apaches had concluded the massacre of the Oatman family, and plundered the wagon of its contents, they fled across the river, taking with them the two captives, Olive and Mary Anne. These unfortunate girls had seen their parents, brothers, and sisters cruelly murdered, and were now dragged away, bare-headed and shoeless, through a rude and desolate wilderness. Ferocious threats and even clubs were used to hurry them along. Their feet were lacerated, and their scanty clothes were torn from their bodies in passing over the rocky mesas and through the dense and thorny thickets. Sometimes the younger sister faltered from sheer want of strength, but the savage wretches, unmindful of her sufferings, beat her and threatened to dispatch her at once if she lagged behind. She said it was useless to try any more—she might as well die at once. A brutal wretch of the tribe seized her as she sank to the ground, and casting her across his back, started off on a trot. Thus they traveled till late in the night, when they halted for a few hours. On the following day they met a rival party of Indians, among whom was one who had lost a brother at the hands of the whites. The strange Indians charged furiously upon the captives, and would have killed them but for the interference of their captors, who were not willing to lose their services. On the third day of their journey, after the most incredible hardships, having traveled over two hundred miles, they came in sight of a cluster of low, thatched huts down in a valley. This was the Apache rancheria. The captives were ushered in amidst shouts, and songs, and wild dancing. For many days the savages indulged in their disgusting revels. The two young girls were placed in the center of a large circle, and compelled to witness sights so brutal and obscene that they were filled with dismay. They prayed that they might die before they should be subjected to the cruel fate that threatened them. The tribe consisted of about three hundred, and lived in the most abject condition of filth and poverty. From this time, for many months, they lived a life of servitude, working from morning till night for their captors, and subject to the most cruel and brutal treatment. The scantiest pittance of food was allowed them, and that they had to gather themselves. Often they were without food for two days at a time, save such roots and insects as they could secretly devour while gathering supplies for the lazy wretches who held them in bondage. The younger sister, Mary Anne, was of a weakly constitution, and gradually declined under the terrible hardships to which she was subjected. There is a touching pathos in the gentleness and fortitude with which she bore her sufferings. She seldom complained; and it was her custom, when alone with her sister, to sing hymns, and say she thought God would take pity on them some day, and deliver them.

"In March, 1852, the tribe with whom they lived, was visited by a band of Mojaves, who were in the habit of trading with them, and a bargain was made for the purchase of the two sisters. The Mojaves

remained a few days carousing with their friends, and then set out with their prisoners for the Colorado. A dreary journey of two hundred miles over a desert and mountainous country, during which they suffered hardships surpassing any thing they had hitherto endured, brought them to the village of the Mojaves, where they were received with dancing, shouting, and jeering. The crops of the Colorado were short, and here again they suffered all the horrors of a gradual starvation. Even some of the Indians died from insufficiency of food to sustain life. The gentle child, Mary Anne, worn down by the fatigues of the trip and want of nourishment, wasted away gradually, till it was apparent to Olive she was dying. The sisters sat one evening hand in hand. Mary Anne sung one of the favorite hymns she had been taught by her mother. Then gazing with steadfast and loving eyes in her sister's face, she said, "I have been a great deal of trouble to you, Olive. You will miss me for awhile, but you will not have to work so hard when I am gone." The Indians gathered around in mysterious wonder. But the dying girl saw them not. A smile of ineffable happiness beamed upon her features. Peacefully she sank to rest in her sister's arms. Olive was left to bear the burden of life alone.

"It is the custom of these Indians to burn their dead. Preparations were made for this ceremony in the present case; but the wife of the chief, pitying the distress of the surviving girl, prevailed upon him by much entreaty to let Olive bury the body according to the custom of her people. A grave was dug in a little patch of ground which had been cultivated by the sisters. They had often worked together in this little garden, and talked of their happy home before misfortune had come upon the family. All that was mortal of the gentle captive-girl was here consigned to the earth. Olive was thenceforth without friend or companion.

"During these dreary years the brother, Lorenzo, had vainly striven to procure the rescue of his sisters. No aid was furnished by the military authorities at Fort Yuma. The only person who took any interest in the matter was Mr. Henry Grinnell, a private citizen, who, from 1853 up to the date of their rescue, never ceased to exert his energies to that end. And here a singular coincidence occurs. While the Grinnell expeditions, organized through the generosity of a merchant-prince—Mr. Grinnell, of New York—were prosecuting their search at the Arctic Circle for Sir John Franklin, an erratic nephew of the same Grinnell, who, from love of adventure, had wandered into the wilds of Arizona, was nobly devoting his energies to the rescue of two emigrant girls who had fallen into the hands of the Apaches. If there is nothing in blood, surely great hearts run in families; for here was one, without means, doing as much for the cause of humanity as the other with all the resources of his fortune.

"Through the services of Francisco, a Yuma Indian, the purchase of Olive from the Mojaves was effected by Mr. Grinnell, in February, 1856. She was brought down to a place on the Colorado at an appointed time. Here Mr. Grinnell met her. She was sitting on the ground, with her face covered by her hands. So completely was she disguised by long

exposure to the sun, by paint, tatooing, and costume, that he could not believe she was a white woman. When he spoke to her she made no answer, but cried and kept her face covered. It was not for several days after her arrival at Fort Yuma that she could utter more than a few words of broken English. Subsequently she met her brother, and was taken by him to his residence near Los Angeles. After that they lived awhile in Oregon. In 1863 they were said to be living in Rochester, New York."

KING WOOLSEY'S EXPLOIT.—Not a great distance from the spot where the Oatman family was massacred, the following incident took place in 1861: King Woolsey, who has since become famous in Arizona as an Indian-fighter, had contracted to supply the Government with hay, and was returning from the grass range with his loaded wagon and two hired hands, unsuspecting of danger. They had but one gun with them, which, by good luck rather than by precaution, was charged with buck-shot. In emerging from the bushes where the road approached the point of a sand-hill, a terrific yell burst upon them, and in a moment the Apaches sprang from their ambush and charged upon them like so many devils incarnate. Woolsey said, "Hold the mules, boys, and give me the gun!" which they did with great coolness. The Indians wheeled about and dodged, but kept shooting their arrows with such fearful dexterity that Woolsey thought it was advisable to give them a load of buck-shot. The distance was too great and no damage was done. At this the savages renewed their diabolical yells; closer and closer they crowded, the brave little handful of whites standing coolly by the wagon and mules, ready to sell their lives as dearly as possible. The leader of the Apaches, a warrior of gigantic stature and hideous features, rushed forward, brandishing his war-club, and called upon his men to follow. Woolsey waited until the chief approached within twenty paces, when he discharged the other barrel of his gun. Down tumbled the yellow savage, with a hole through his head. In the panic and confusion that followed, it was deemed advisable, as there was no more ammunition, to cut loose the mules and retire to the station. Here they procured additional force and armed themselves. Returning as soon as possible to the scene of the conflict, they found that the cowardly wretches who had attempted to murder them, had fled, not even taking time to destroy the wagon. The chief lay just where he had fallen, stiff and stark, as peaceable an Indian as one could wish to meet of a summer's afternoon. It is a curious fact that the Apaches never remove their dead. A superstition seems to prevail among them on this point, and it is said they will not approach a spot upon which one of their comrades has been slain.

Woolsey and his party determined to make a conspicuous mark of the dead chief, from which marauding Indians might take warning. They dragged it to the nearest mesquit tree, and hung it by the neck, leaving the feet to dangle about a yard from the ground. A traveler, about two years afterward, saw the body still hanging there, dried and shrunken, and of a parchment color.

BILL RHODES AND THE APACHES.—"I saw," says J. Ross Browne,

in his sketches of a tour through Arizona, "on the sound between San Xavier and Tubac, a distance of forty miles, almost as many graves of white men murdered by the Apaches within the past few years. Literally the roadside was marked with the burial-places of these unfortunate settlers. There is not now (January, 1864) a single living soul to enliven the solitude. All is silent and death-like, yet strangely calm and beautiful in its desolation. Here were fields with torn-down fences; houses burned or racked to pieces by violence, the walls cast about in heaps over the once pleasant homes; every-where ruin, grim and ghastly with associations of sudden death. Day and night the common subject of conversation was murder, and, whenever our attention was attracted by the beauty of the scenery or the richness of the soil, a stone-covered grave marked the foreground.

"The history of Bill Rhodes, at whose ranch we encamped, was an example. In the full tide of success, this daring frontiersman returned to his home one evening, and found his comrades murdered and himself surrounded by a large band of Apaches. By some means he managed to break through their lines; but his horse being jaded, it soon became apparent that escape was impossible. Just as the pursuing Indians were upon him, he flung himself into a willow thicket, and there made battle. A circle was formed around him by the blood-stained and yelling devils, who numbered at least thirty; but he was too cool a man to be intimidated by their infernal demonstrations. For three hours he kept them at bay with his revolver, although they poured into the thicket an almost continued volley of rifle-shots and arrows. A ball struck him in the left arm, near the elbow, and nearly disabled him from loss of blood. He buried the wounded part in the sand and continued to fight till the Indians, exasperated at his obstinate resistance, rushed upon him in a body, determined to put an end to him at once. He had but two shots left. With one of these he killed the first Indian that approached, while the rest whirled about and stood off. They then addressed him in Spanish, calling him by name, and telling him that he was a brave man, and if he would come out they would spare his life. 'No,' said he, 'd—n you! I'll kill the last one of you before you shall take me!' He had given such good evidence of his ability in that way, that they held a parley and concluded he was about right; so they retired and left him master of the field. Bill Rhodes's Apache fight is one of the standard incidents in the history of Arizona."

THE PIMO INDIANS.—In the old Spanish records of the expeditions made to the Gila River during the sixteenth and seventeenth centuries, special reference is made to the Pimo, or, as the Spaniards call them, Pimos Indians. Savadra, an excellent authority respecting the Indian races of Sonora, having spent much time among them, says the Pimos, Muricopas, Cochans, and Mojaves are all "Indians of Montezuma," in proof of which he refers to one custom common to all—that of cropping their hair across their foreheads, leaving the back part to fall its full length behind. This statement is corroborated by the Pimos of the present day, who proudly boast of their descent from the

Montezumas. The most interesting fact in the history of these people is, that as far back as the records extend, they lived, as they do to this day, cultivating the earth, showing a direct affinity with the Pueblo Indians of New Mexico. Alarem, who visited the great valley of the Colorado in 1540, mentions that it was cultivated to considerable extent by tribes having a fixed residence and permanent abodes. Unlike the Apaches and the mountain tribes to the north, who live a wandering and predatory life, the Pimos have always manifested a friendly disposition toward the whites, and seem much devoted to the peaceful pursuits of agriculture and stock-raising.

In consideration of their industry and amiable conduct toward Americans, the Government of the United States, in 1859, caused a reservation to be set apart for them, embracing all the lands which they had in cultivation at the period of the acquisition of Arizona. It embraced one hundred square leagues of arable land, most of it susceptible of irrigation. The length of the reservation is about twenty-five miles, the breadth four, and the River Gila runs through it from one end to the other. Three large acequias take their head near the upper boundary, one on the north and the other on the south side of the river, two miles below Sacatone. These, with their various branches, comprise nearly five hundred miles of well-defined acequias, and extend over a tract of land eighteen miles in length. We have authentic history in proof of the fact that for three hundred years the same land has been under cultivation, producing two crops a year without manure or renewal of any kind, yet it continues as productive as ever. It is probable that the deposits left by the water are of a fertilizing nature. The return in wheat is twenty-five fold. The season for wheat-planting is December and January. Tobacco and cotton, which flourish with remarkable luxuriance, are planted when the mesquit leaves put forth—generally about the first of March. The summer rains commence about the 25th of June, by which time the wheat harvest is over, and corn is planted in the same ground; also pumpkins, melons, and other vegetable products requiring great heat and moisture. Considering the rude system of agriculture pursued by these people, and the indolence of their young men, who seldom do any thing but ride about and gamble, it is remarkable what crops they have produced in this reservation.

The number of Pimo villages is 10; Maricopas, 2; separate inclosures, 1,000; usual population, 6,000. In 1863 they furnished the Government with 600,000 pounds of wheat, and disposed of about 100,000 pounds made into flour, and sold to miners and traders. Their crops were smaller than usual, owing to the breakage of their main acequia at a critical period of the season; and in January, 1864, they were nearly out of wheat, but still had a good supply of other products.

The Pimos have always proved themselves good warriors, and have been uniformly successful in resisting the incursions of the Apaches. Their villages afforded almost the only protection to American citizens in Arizona.

On the death of a member of the tribe, his property is fairly and equitably divided among his people. If he be a chief, and possessed

of fields and corn and cattle, his death is a windfall to the community. The villagers are summoned to his burial. Over his grave they hold a grand festival. The women weep and the men howl, and they go into a profound mourning of tar. Soon the cattle are driven up and slaughtered, and every body, heavily laden with sorrow, loads his squaw with beef, and feasts for many days. All the effects of the deceased become common property; his grain is distributed; his fields shared out to those who have need of land; his chickens and dogs divided among his tribe, and his widow is offered by public proclamation to any man who desires a wife. If she be an able-bodied woman, capable of doing much work, she is generally consoled within a few days by another husband, though custom allows her to howl for the last until the conventional demands of grief are satisfied. Marrying a wife with a tar-covered face having its inconveniences, the new husband is also permitted to wear tar, which doubtless has a tendency to cement the union. The bow and arrows, blankets, beads, paints, jew's-harp, and other personal effects of the deceased are buried with him. The body is placed in a sitting posture, with the face toward the sun. Over the grave sticks and stones are placed, and thus he is left to his last long sleep.

THE CASAS GRANDAS.—The famous Casas Grandas are situated about twenty miles above the Pimo villages, near the Gila. The remains of three large edifices are distinctly visible, one of which is in a state of remarkable preservation, considering its great antiquity and the materials of which its walls are composed. This grand old relic of an age and people of whom we have no other than traditional accounts, looms up in bold relief over the desert as the traveler approaches, filling the mind with strange perplexity as to the past. What race dwelt here? By what people were these crumbling walls put together? How did they live? and where are they gone? are questions that we are reluctant to believe must forever remain unanswered. The earliest accounts we have of the Casas Grandas of the Gila is that of Mangi, who visited them in company with Father Kino, in 1694. He speaks of the main ruin as a great edifice, with the principal room in the center, four stories high, and the walls two yards thick, and composed of strong mortar and clay. He also mentions the existence of twelve other ruins in the same vicinity. Only three of these are now seen above the surface of the ground, although there are evidences of many more in detached mounds which abound in the neighborhood. The probability is that the main building, which at present forms the most prominent object in view, was the nucleus of an extensive city. From the account given by Father Pedro Font of his visit to this region during his journey from Orcussetas, in Sonora, to Monterey, California, in 1775, '76, and '77, it appears that he found the Casas Grandas very much in their present condition. The Indians, he states, had a tradition among them that these great houses were built five hundred years ago.

Each group of ruins stands upon a slight eminence distant from the others a few hundred feet. The tower, or central part of the principal building, is about forty feet high, and there were originally four stories in the building, as appears by the holes in the walls, in which are still

seen the ends of the round poles, or rafters, which supported the floors. Several of these are some five or six inches in diameter, and seem to be composed of a species of cedar. The ends show very plainly marks of the blunt instrument with which they were cut, probably a stone hatchet. It is evident the use of iron was unknown to the people who originally dwelt here. By slight excavations, bone awls, and other instruments of flint, stone, and bone have been discovered.

The walls of the Casa Granda are composed of a concrete of mud and gravel, very hard, and capable of long enduring the wear and tear in this equable climate. The upper portion has been washed and furrowed by the rains, and the base is worn away to such a depth as to threaten the permanency of the whole, from which its great antiquity may be inferred. This concrete or adobe was cast in large blocks, several feet square, presenting originally, no doubt, a smooth, flat surface, but the outside has been affected by the changes of the seasons. The inner surface is as smooth and hard as the finest plastered room. Former explorers speak of rude paintings and hieroglyphics to be seen on the interior walls, but these have been either so defaced as to be not now perceptible, or washed away by heavy rains.

THE TUMACACARI MISSION.—Three miles from Tubac, in the southern part of Arizona, is the old mission of San Jose de Tumacacari, one of those interesting relics of Jesuit enterprise which abound in this country. The mission is pleasantly situated on a slope, within a few hundred yards of the Santa Cruz River. A luxuriant growth of cotton-wood, mesquit, and shrubbery of various kinds, fringes the bed of the river and forms a delightful shade from the heat of the sun, which there, even in midwinter, has something of a glow about it. Like San Xavier and other missions built by the Jesuits, Tumacacari is admirably situated for agricultural purposes. The remains of acequias show that the surrounding valley lands must have been at one time in a high state of cultivation. Broken fences, ruined out-buildings, bake-houses, corrals, etc., afford ample evidence that the old Jesuits were not deficient in industry. The mission itself is in a tolerable state of preservation, though by no means as perfect as San Xavier del Bac. The dome, bell-towers, and adjacent out-houses are considerably defaced by the lapse of time, or more probably by the vandalism of renegade Americans. A strong adobe corral adjoining the back part of the main edifice, with a massive gateway, and with loop-holes for purposes of defense, show the insecurity under which the worthy fathers carried on their agricultural pursuits.

THE RAINY SEASON.—In Southern Arizona the rainy season commences in June, and lasts generally till September. During the winter there is but little rain, but at the opening of spring there are showers that start vegetation. Immediately after the first heavy rain, the earth becomes clothed in the richest verdure. The trees burst forth into leaf, and the valleys and hills are decorated with flowers; the corn in the milpas springs into life; the streams rush down from every mountain canon, and the thirsty earth rejoices in the refreshing deluge. June is the season of greatest vegetable growth. So warm and porous is the

ground that it quickly absorbs the moisture, and in a few days after the heaviest rain, one would scarcely believe such a blessing was ever enjoyed. Roaring torrents have become dry arroyas; floods that covered the low lands have disappeared, and the dry, cracked earth seems gasping for more water; vegetation begins to look parched, the grain is scorched by the burning rays of the sun, and thus it continues till another torrent reinspirates the earth with new life and vigor.

NOTED MINES.—The Patagonia, since called the Mowry Mine, was probably known to the Mexicans and worked by them many years ago. The Americans first discovered it in 1858. In 1860 it became the property of Sylvester Mowry, Esq. It is situated within ten miles of the boundary line between Arizona and Sonora, is 6,170 feet above the level of the sea, and is distant 280 miles from Guaymas, on the Gulf of California.

The lode appears to be large, bold, and well defined, and one of fair average richness. It is composed of argentiferous galena, impregnated with arsenic, and is easily reduced by smelting. Three distinct veins cross each other in the principal lode. Mr. Kustel, the distinguished metallurgist, visited the mine in 1864, and made a thorough examination of its ores and resources. From a report made by him, it would appear that some of the ores average \$350 to the ton. The result of one day's working he found to be as follows: Produce of twenty tons in silver, \$1,200; in lead, \$480; total, \$1,680. Expenses of reduction, mining, etc., \$400; profit, \$1,280.

The Salero, which is the principal mine in the Santa Rita region, is situated on the side of a conical mountain of the same name, rising immediately from a little valley, and presenting some very striking mineral phenomena. The shaft is seen about a third of the way up its face, and is approached by a wagon-road, which cuts and leaves exposed a number of veins running into the mountain in nearly the same direction, and all bearing more or less indications of silver.

This mine has long been known to the Mexicans, and was worked by them more than a century ago under the direction of the Jesuits of Tumacacari. A legend is told of the derivation of the name, Salero or Salt-cellar, which may be worthy of record. On the occasion of a visit of the Bishop of Sonora to Tumacacari, the good father in charge of the establishment furnished, as in duty bound, the best entertainment for his superior that his limited resources would allow. The Bishop was delighted with the sumptuous entertainment before him; the chickens, the fruits, the wines were all excellent; there was only one thing lacking to complete his temporal happiness—a salt-cellar. The poor padre was deeply mortified; he had forgotten all about the salt-cellar; in fact, he had long forgotten the use of such luxuries. "Never mind," said he, as a happy thought struck him, "your Excellency shall have a salt-cellar to-morrow." A few trusty men were dispatched to the Santa Rita Mountains, with orders to dig and smelt some silver ore, and make a salt-cellar; and, sure enough, by dinner-time the next day a massive salt-cellar was presented to the Bishop; and from that time forth the mine out of which the ore was dug was called the "Salero."

In the immediate neighborhood of the Salero mine, some fifteen or twenty other distinct mines had, in 1864, been partially opened and well tested, forming a perfect net-work of silver-bearing ledges. Among them were the Salem, Brestillo, Crystal, Encarnation, and Fuller, each one of which had yielded, under a very imperfect system of working, at the rate of four hundred to fourteen hundred dollars per ton. This, of course, was from selected ores.

As a grazing country for cattle and sheep, the valleys and foot-hills of the Santa Rita can not be surpassed. Grass of every variety known to Arizona covers the ground all the year, and there is practically no winter for live stock. The climate is so mild, even in the months of January and February, that it is a positive luxury to sleep in the open air. Wood can be obtained in limited quantities in the neighborhood, and when that is exhausted, the valley of the Santa Cruz, only twelve miles distant, furnishes an inexhaustible supply. The mines abound in ores easy of reduction by smelting, and they are so situated that access to them by good roads can be had at a small expense. The transit to Tucson and Guyamas is over the best natural roads in the world.

Within the distance of eight miles lies the beautiful valley of the Sonoita, which is watered by the river of the same name, and abounds in very promising gold and silver ledges. Some of the finest farming lands in the Territory lie along the borders of this stream. When Fort Buchanan was occupied, several families from Texas and the borders of Missouri lived in the valley, and the wheat crops raised by them were absolutely wonderful.

The Sopori mines are about twelve miles south of Tubac. At our latest accounts (1864), the lode had been but little explored. A shaft had been sunk, from which some very rich ore had been taken, portions of it in small particles of silver. The average of ores taken out, and upon which experiments had been made, demonstrated a yield of \$150 per ton, and this by the rudest process of smelting. Selected ores had yielded \$700 to the ton. The whole country bears strong indications of rich mineral deposits. The Mexicans for many years have worked gold placers in the ravines of the neighboring mountains.

One of the most celebrated mines in Southern Arizona is the Heintzelman, or, as it is more commonly called, the Cerro Colorado, twenty-four miles from Tubac. A prominent landmark for several miles before reaching the mine is the conical hill of reddish-colored rock, called by the Mexicans Cerro Colorado, from which the district derives its name. Standing on a rise of rolling land, isolated from the neighboring mountains, it presents, in its conformation and coloring, a singularly picturesque feature of the scene. Back of this curious peak to the mouth lies a rugged range of mountains, upthrown, as it were, out of the earth, by some tremendous volcanic convulsion. In this the strangest confusion of outlines and colors prevails; it is literally a chaotic wilderness of rocks, boulders, porphyritic pillars, masses of lava and scoria, weird and terrible, yet magnificent in the immensity of its desolation. But this desolate range of mountains abounds in

veins of gold and silver, some of which have been profitably worked by the Mexicans.

Selected ores from the Heintzelman mine have yielded a thousand to two thousand dollars of silver to the ton, with a considerable percentage of copper. The average yield is said to be about \$250 to the ton, so that there can be no doubt as to the richness of the ore. It is clearly defined on the surface of the ground for the distance of two miles, and, so far as observations and explanations have gone, increases in width and quality as it descends.

Of the mining interests in the vicinity of Prescott, the capital, Richard C. McCormick, Secretary of the Territory, spoke as follows, in 1865:

"The surface ores of thirty mines of gold, silver, and copper, which I have assayed in San Francisco, were pronounced equal to any surface ores ever tested by the metallurgists, who are among the most skillful and experienced in the city, and, so far as ore has been had from a depth, it fully sustains its reputation. The veins are large and boldly defined, and the ores are of varied classes, usually such as to be readily and inexpensively worked, while the facilities for working them are of a superior order. At the ledges is an abundant supply of wood and water; near at hand are grazing and farming lands, and roads may be opened in every direction without great cost. Some of the streams are dry at certain seasons, which fact renders placer mining an uncertain enterprise in this part as in other parts of the Territory; but for quartz mining there could not possibly be a more inviting locality. The altitude is so great that the temperature is never hot; and the nights, even in midsummer, are refreshingly cool and bracing. The ascent from the river by the roads from La Paz and Mojave is so easy, that, with the small amount of work already done upon the same, the heaviest machinery may be readily transported. The distance by either road is about one hundred and sixty miles, and the charge for freight is from six to eight cents per pound. Contracts may now be made for the delivery of machinery at Prescott from San Francisco, *via* the Colorado, for ten cents per pound."

Weaver and Wickenburg, upon the Hassayampa, south of Prescott, are important mining centers. Eastward from Prescott, upon the Agua Frio, the Verde, the Salinas, and other streams, to the Mexican line, exploring parties have discovered evidences of great mineral wealth and excellent agricultural districts. Northward to the villages of the Moquis and the San Juan River, the country is but little known, but is believed to be prolific in the precious ores and timber. Some of the most promising districts have never yet been prospected. In the opinion of many persons, the richest mines lie in the unexplored eastern part of the Territory.

COUNTIES AND COUNTY TOWNS.—Arizona is divided into five counties. The following is a list of the counties and county towns, with the total vote cast in each county at the election for delegate to Congress in 1866:

COUNTIES.	COUNTY TOWNS.	TOTAL VOTE.
Mohave,	Hardyville.....	181
Pah-ute,	Callville.....	142
Pima,	Tucson	615
Yavapai,	Prescott.....	491
Yuma,	La Paz.....	286

Total vote in the five counties.....1,695

Coles Bashford was elected delegate.

RIVERS.—The principal river in Arizona is the Colorado, which is formed in the northern part of Utah by the confluence of the Green and Grand Rivers, in about thirty-eight degrees of north latitude. It runs south-west one hundred and fifty miles through Arizona to the east line of California; then turning south, forms the boundary between Arizona and California, and leaving Arizona, enters the head of the Gulf of California in about latitude $32^{\circ} 10'$ and longitude $114^{\circ} 20'$. It is sometimes called Colorado of the West, to distinguish it from the Colorado of Texas.

Various and conflicting opinions have been given by tourists and travelers as to the fitness of the Colorado for purposes of navigation and trade. A gentleman writing recently from Salt Lake City, where he supposed he had obtained reliable information, says the Colorado is navigable for steamboats four hundred miles, or within six hundred miles of Salt Lake City; that there are steamers already on the Colorado, and some merchants of Salt Lake are importing goods over that route by way of experiment. He adds that if successful, as seems quite certain, then the heavy trade of Utah and its dependencies will come and go from New York by way of the Isthmus of Panama and around Cape Horn, and merchants of Salt Lake can get their goods as they want them, instead of having to buy them all at once.

The principal branches of the Colorado that have their course wholly or chiefly in Arizona are the Little Colorado, Bill Williams' Fork, and the Rio Gila.

The Rio Gila rises in New Mexico and runs west through the southern portion of Arizona. Its principal branches are the Verde, the Santa Cruz, the San Francisco, San Pedro, and San Domingo. The Santa Cruz traverses the southern portion of Arizona, running north and north-west, and disappears near Tucson. It is supposed to reach the Gila by a subterranean passage.

THE LANDS, CAPITAL, AND POPULATION.—While it has some barren and desolate country, no mineral region belonging to the United States, not excepting California, has, in proportion to its extent, more arable, pastoral, and timber lands than Arizona. The climate is described as singularly adapted to physical health, or to agricultural or mining pursuits. The valleys of the Gila and Santa Cruz, the San Pedro and other streams, are large, and equal in fertility to any agricultural district in the United States. The San Pedro Valley, over one hundred miles in length, is, perhaps, the best farming district south of the Gila River. The Sonoita Valley, which opens into the Vera Cruz, near Calabasos, is some fifty miles long.

Prescott, the Territorial capital, is in the heart of a mining district of remarkable productiveness. The first house was erected in June, 1863, and in 1865 the town had some hundreds of inhabitants, and the country for fifty miles about, including a dozen mining districts and farming valleys, was largely taken up by settlers. The valleys would, it was thought, produce good crops without irrigation, as the rains in that region are frequent and heavy.

Being primarily a quartz mining country, Arizona has not increased so rapidly as other Western Territories, to which the quick returns from surface mining have attracted a large but often fluctuating population. With the aid of machinery and capital, and ready communication with more settled regions, a steady increase in population may be expected. The number of inhabitants in 1865 was between fifteen thousand and twenty thousand, exclusive of Indians.

AGRICULTURE.—R. C. McCormick, Governor of Arizona, formerly Clerk of the Department of Agriculture at Washington, wrote thus to the Department in the latter part of 1866:

"The valleys of the Territory, more extensively cultivated this year than ever before, have produced an abundant harvest. The yield of corn, vegetables, and small grain is such as to prove that henceforth we need not look abroad for food; and I make no doubt that if assured that their crops will be bought and promptly paid for, and they are properly protected from Indian incursions, our ranchmen will, during the ensuing year, by the favor of Heaven, raise all the breadstuffs that may be required to subsist the military force in the Territory. Here in Central Arizona, even in the mountain districts, where comparatively little was expected in the way of agricultural success, the pursuit of the husbandman is likely to be one of the most profitable. The heavy rains of the present season indicate that irrigation will seldom be necessary, and the fertility of the soil is remarkable. It seems as though every thing planted attained the most luxuriant and complete growth in the shortest possible time. The grains, vegetables, and melons, taken promiscuously from any of the ranches, and raised without fertilization of any kind, or other than the simplest care, would command a premium if placed in competition with the products of the richest and most extensive farms and gardens of the Atlantic States."

I D A H O.

THE Territory of Idaho was organized by act of Congress, approved March 3, 1863. It originally embraced a vast region lying on both sides of the Rocky Mountains; but by the subsequent formation of Montana Territory, its dimensions were greatly reduced. Its present shape is very irregular, as it includes the scope of country between the 42d and 49th parallels of north latitude, and between the crests of the Rocky and Bitter-root Mountains and the eastern boundaries of Oregon and Washington Territory.

The following extracts of a letter, dated Salt Lake City, October 1, 1865, addressed to Samuel Bowles, of the Springfield (Massachusetts) Republican, and published in his recent book, "Across the Continent," give a very full and interesting description of Idaho, its mines and mining operations:

"Idaho Territory has an area of 125,000 square miles, and is bounded on the north and east by British Columbia and Montana, south by Utah and Nevada, and west by Oregon and Washington. Idaho is an Indian word, signifying the 'gem of the mountains.' It was chosen by the early gold-hunters as an appropriate name for the embryo State in the mountains, then extending both sides of the Rocky range. But a comparatively small portion of its vast surface is susceptible of tillage, and mining must ever continue its principal interest. The population of the Territory is now probably about 25,000. It has been more, but as the richest placer diggings are exhausted, other and richer localities are sought. About half of this population has been contributed by Oregon; the remaining half must be about equally divided between California and Nevada, and the States east of the mountains. In the mountains a great depth of snow falls in the winter; but the climate is milder than in like latitudes and altitudes on the Atlantic side.

"Boise City, the capital of the Territory, is, for a mining region, a substantial, steady-going little town. It contains some ten or twelve hundred inhabitants, comprising a number of families, and affording tolerable society. It is the depot for all the mining region so far as discovered in southern Idaho. Here are large stocks of mining goods, and here, and through here, all the mining towns and camps obtain or receive their supplies. There are no mines immediately about the town, nor, indeed, nearer than twenty-five miles.

"Boise City is located upon the west bank of Boise River, a moderate stream, which marks a fertile but narrow valley, in which nearly all the grain and vegetables thus far raised in Southern Idaho are produced. This product, however, does comparatively little toward supplying the miners. The bulk comes from Oregon, with an occasional venture of salt and vegetables from Utah.

"Idaho City is some thirty-five miles north of Boise City, and you are taken there in the stages of Henry Greathouse, a brother of Ridgely Greathouse, who was convicted at San Francisco of attempting to fit out a pirate vessel, discharged under the amnesty proclamation of Mr. Lincoln, afterward rearrested, taken to New York, and confined in Fort Lafayette, from which he made his escape and fled to Europe, where he now is. His brother Henry is understood to hold Southern sympathies, but never talks of public affairs. He is a quiet, hard-working man, drives a coach himself, when necessary, and has accumulated a good deal of money. The town is situated in what is termed 'Boise Basin,' between Moore and Elk Creeks, branches of Boise River, and is the largest town in the Territory. It is in the midst of an important placer district, and contains from five to seven thousand inhabitants, on week days, and from ten to fifteen thousand on Sundays, for Sunday is a populous and profitable day with a mining town. On that day all the miners for miles around visit the town to purchase supplies, exchange greetings, gamble, guzzle, and indulge in dissipations of mining metropolitan life. Idaho City, seen on Sunday, is a very different town from the Idaho City of any other day. There is no store, shop, or business place of character closed on that day. It is altogether the busiest week with shop-keepers, victualers, gamblers, and whisky dispensers.

"Idaho City is built in and over the mines, and one-third or one-half of the buildings in the place have been already mined under; nearly all undoubtedly will be. In a mining country the miner is king, and his will is the law. If he finds 'pay-dirt' under a house, he locates and records his claim, and commences to undermine it, without saying 'by your leave' to owner or occupant. Of course, as he digs, he props up the building, so that it may not fall upon his head; that secure, he troubles himself no further. When a claim is worked out, he leaves it without filling under or further propping up the house. If it falls, it concerns not him. The city or territorial authorities have enacted laws forbidding the undermining of buildings without making them permanently secure from fall. But the miners elect the officers and compose the juries that administer the law: it is unnecessary to add the miner wins the suit. Several have been commenced and prosecuted, but with no other result. The same is the case with regard to the streets; where the miner's claim leads across, up or down one, across, up or down he goes, wherever 'pay-dirt' points, and the public can repair or abandon the road, as they find most convenient or profitable.

"About two months prior to our visit, Idaho City had been almost entirely destroyed by fire, occasioning an estimated loss of \$1,400,000. Already the town had been rebuilt with a better class of wood buildings than before, interspersed with a number of brick blocks. The recuperative energies of a flourishing mining town are extraordinary.

"The 'Boise Basin,' as it is called, is a sink or depression in the mountains; higher mountains surrounding constitute the basin's 'rim.' I do not know the extent of the basin, but should think it to be from thirty to forty miles in length, and perhaps a little less in width. Over

These are scattered placer mines, of various extent and richness, the most important of which are those in the vicinity of Idaho City. There are, however, other placers and other towns of consequence, not far distant in the surrounding country. One of the latter bears the euphonious name of 'Hog'em,' said to have been derived from the swinish propensities of its early proprietor.

"These placer mines are of considerable extent, and more than fair productiveness. They are of three classes, the first and richest being the 'Creek Diggings,' comprising the bed of the creek and its banks; the next and less productive, though yielding from ten to fifteen dollars per day to each miner when supplied with water, includes the higher bank; the third consists of hill diggings beyond, still poorer, but paying for working when water can be had. The Creek Diggings, best and longest supplied with water, have been generally worked out, and, of course, with them has gone the cream of the mines. An unusual rise of Moore and Elk Creeks last spring brought down the 'tailings' from the mountains, and buried the claims below ten or twelve feet deep, and all summer the miner has been compelled to 'strip' this surface off before being able to work his claim. The bench and hill diggings, with here and there the exception of a gulch, down which the melting snows have poured torrents, remain generally undisturbed. They depend mainly upon the melting snows and spring rise for water. The consequence is, the mining season for any thing but creek diggings is short, not exceeding two or three months of each year.

"We were in the Basin in the month of September—the dull season. Probably at that time ten thousand persons were employed in placer mining. In the spring, the number has heretofore been larger, and will again be, if other excitements and discoveries do not further draw off the population. Already, it was said, two thousand persons had left for the Blackfoot Mine, and if the reports of rich discoveries there were confirmed, a stampede in the spring was predicted.

"I have no means of ascertaining accurately the product of the Idaho gold mines. The known amount deposited for coinage in the San Francisco mint for the year ending December, 1864, was reported at \$3,500,000, and San Francisco estimates placed the total amount for that year at \$6,000,000. That is probably not above the actual product. But mining there is, as every-where else, a precarious business, a life of excitement, and not seldom success. A few acquire sudden riches; the many make a living.

"In an around the Boise Basin are many gold-bearing quartz leads, some thought to be rich and extensive; but few, if any, yet fully proved to be so. Several mills are at work upon some of them, but none that we saw are so far developed as to satisfactorily demonstrate their richness. Among the apparently promising leads we visited were three lying near together in the Summit Flat District, distant some fifteen or eighteen miles from Idaho City. They are called the 'Mammoth,' 'King,' and 'Specimen' ledges, and are owned by Messrs. Jackson, Humason, and Bibb. They are gold mines only, and not extensively developed, yet reasonably promising so far as they have been worked.

There has been an eight-stamp water-mill running upon the ore of one of them for a year, and from the proceeds of it they had purchased and were erecting a ten-stamp steam-mill, expecting to have it running by the beginning of winter. They were without capital, except as they dug it out of the mine, and were, therefore, compelled to work slowly. The country about the Flat is liberally supplied with water and timber, which makes working the mines easier and cheaper.

"South Boise, distant about sixty miles, is a more recent discovery, and is thought to be richer in quartz than the Basin. The discoveries there are mostly silver.

"The Owyhee mines are situated in the mountains of that name, about sixty miles south of Boise City, to reach which you are compelled to pass over the worst alkali road in Idaho. There is a line of stages running there from Boise City. We found two little towns, Ruby and Silver Cities, extending more than a mile along the narrow gulch, in which are limited placer mines. The Owyhee mines are almost wholly silver-producing, and there can be little doubt that the district is, as a whole, rich in its metal. There are some valuable ledges there, and many worthless ones; some honest and some bogus, wild-cat companies. The only mine which has been fully proven rich is the 'Oro Fino,' and, perhaps, the 'Morning Star,' owned by Moore and Fogus. Upon the first ledge they have excavated a tunnel 600 feet long, and sunk a connecting shaft, also upon the ledge, over 100 feet. All the way they find it rich and wide, and improving in both respects as they go in and down. On the 'Morning Star' they have sunk a shaft about 100 feet, and thus far find the ledge yielding well.

"There are doubtless many other valuable ledges there, but none have been so fully tested. Some New York companies are putting up large mills, and twenty or thirty are on the way. Some ledges, little prospected, may prove rich; others, doubtless, will be found worthless. Some interests, valuable and valueless, are claimed by those who have failed to comply with the mining laws of the Territory, and consequently have no title. Many were talking about going East to sell their mines, and, if they can raise the passage money, a goodly number will be in the Eastern cities before long, with Idaho mines and mining stock for sale. Some of this species of property will be genuine; much of it will possess no known or probable value. Purchasers should be well assured of the standing and repute of parties with whom they deal, and upon whose representations they rely. If not, they had better personally inspect, or employ some reliable agent to do so, before they purchase mining property.

"The Owyhee district is sparsely supplied with wood, and water is not abundant. There will be fuel enough for some years, but if the district proves as rich as it is expected to, it must become exhausted at no very distant period. Probably before that time coal will be discovered.

"Illustrative of mining life are the experiences and conditions of some acquaintances I found in Idaho—one, an excellent gentleman, a lawyer of learning and ability, who once held an important appoint-

ment connected with the United States Courts of one of the Pacific States. He is a graduate of Harvard, son of a wealthy Bostonian, who desired him to travel. In pursuance of such request, accompanied with unlimited letters of credit, he spent last winter and fall at the Sandwich Islands. Now he was in the Boise Mines, in miner's garb, with pick and shovel, hard at work upon a not over-remunerative claim.

"Another acquaintance had, in years ago, fallen heir to a saw-mill in California, by the death of a brother. The mill soon involved him beyond his ability to pay, and was sold, leaving him in debt. He remained in that unpleasant condition until the spring of 1863, when, with a small steam saw-mill that he could have almost packed upon a wagon, he went to Idaho City. I met him last month, just on the eve of leaving for the Atlantic States, with \$55,000 in gold.

"A third I had known in early times on the Pacific coast as a man of wealth. In dissipation he had squandered the most of it. Going early to Boise he soon made another raise, and was worth \$40,000 or \$50,000 in gold. Now he was 'flat broke.' Cards, whisky, and women were the rocks upon which he was wrecked. The son of a New England deacon, and graduate of a New England orthodox Sabbath-school, was keeping a stylish drinking saloon, and living with a commercial miss, with whom, owing to the scarcity of clergymen or other persons qualified to perform the service, he had never been married. When I meet his relatives they always inquire after his welfare, and, anxiously, if 'he continues to love the Lord and grow in grace.'

"A leading clergyman of a popular denomination built a church in Idaho City, and occasionally preached in it on Sundays; and being engaged in merchandising, it was said his clerks kept his store open the while. At the time we were there, preaching had been suspended, and the church rented to the United States for a court-room; and the only time we visited it, Chief-Justice McBride was trying a murderer therein.

"Captain Fisk relates finding in Idaho a Mr. Murphy, who endeavored to sell him a mine he owned for \$12,500. Captain Fisk declined to buy, and, a few months after, Murphy sold the property to New York capitalists for \$175,000. A few weeks before I was at Owyhee, an acquaintance, in company with another, discovered a silver lead. He sold his half for \$1,100. While we were there, one-fifth of the same half was sold for \$30,000, gold. A friend who, burnt out by fire and washed out by flood, became bankrupt in the Willamette Valley, went to Boise in 1862 or '63. Now he is joint owner in four stores and stocks of goods, a fast freight and passenger stage line near 400 miles long, a large hotel, and much other property. A good many others, who went there in indigent circumstances, I also found had held their own remarkably.

"The stage line from Boise City to Salt Lake, 370 miles—fare \$100, gold—is owned by Ben. Holladay. It traverses a barren country, covered with interminable sage, and inhabited only by coyotes and wolves. We pass within two miles of the celebrated, and not long ago discovered, Falls of Snake River, greater than those of Niagara, but could not visit them without remaining over a day, and running the risk of

finding a crowded coach on the morrow. Unless I shall chance to pass that way again, I shall never cease to regret that we did not remain and visit that world-wonder. A little further on, at the last crossing of the South Fork of the Columbia, we found quite a large river abruptly bursting from out a mountain side. It ran, cold and clear, a short distance, and added its waters to those of the Snake.

"The Boise end of this road has sometimes been visited by 'road agents,' as highwaymen are called in the mines. They infest all the roads leading from Boise. The day before we left Boise City, the stage coach was robbed by them. Among the passengers was a miner with \$8,000 in gold, the savings of two years' labor in the mines. He had been in town several days, inquiring whether it was safest to go to the States by way of Walla Walla or Salt Lake. Probably his inquiries led to the robbery of that particular coach by some villains of the town. They usually go in parties of about a half dozen, disguised and armed with double-barreled shot-guns, and springing suddenly from an ambush, rarely fail to succeed in stopping the coach and robbing the passengers. If resistance is not made, they do not usually add murder to their crime. When their depredations become frequent, the community generally rise and hunt them like wolves, shooting and hanging them wherever found. Order then succeeds as long as the fright continues. These depredations become every year less frequent, and the danger is not now considered great.

"These vast sage plains: is it not possible that some time in the ages to come, so soon, perhaps, as they will be required for settlement, timber may cover them, rains and rivers follow, and population swarm?

"At Bear River we paid for our breakfast in green-backs, being the first place at which we found them circulating as currency. Here the stage line merges with Holladay's line from the mining regions of Montana, and continues 80 miles to Salt Lake. A short distance brought us into prosperous Mormon settlements, through which we continued to pass until night rolled us into this chief city of the "Latter-Day Saints."

The following passages, relating to mining in Idaho, are from Mr. Bowles' book, "Across the Continent," written in 1865:

"The Boise Basin district is rich in gold-washings, and is, perhaps, the richest region in this respect yet worked anywhere in the West. It has also rich quartz veins, and there are already eight mills in operation there, with eighty-four stamps. South Boise is less rich in placer diggings, but has an even larger development of the quartz interest. The bullion (gold) here holds a large proportion of silver, and is not worth over fourteen dollars an ounce. The Owyhee district borders on Oregon, and its mining wealth runs over into that State. The ore here is like that in Nevada, having more silver than gold in it. There are six mills now in this district, one of them with thirty stamps. The veins in Boise Basin and South Boise are small, like those of Reese River, in Nevada, opening sometimes as low as four inches, but enlarging generally to four or five feet. The Mammoth vein is from three to twelve feet wide; the ore is generally free and simple,

and is worked without roasting. The yield is from forty dollars a ton up; one vein runs from forty to eighty dollars; and others have yielded from two hundred dollars to three hundred dollars a ton. It is not probable that the full value of the ore is obtained by the present means of working, and the tailings are saved.

"The country is very barren, having the same general characteristics as eastern Oregon and Nevada. There are some good valleys, and timber is plenty enough for the present, save in the Owyhee district. The price of labor is six dollars a day, and goods and provisions are in proportion. The population is made up mostly of the floating mining elements of California, Oregon, and Nevada; the men, who are always moving on for the newest mines, prosperous to-day, poor to-morrow. The winters in Idaho are severe, and the work in the placer diggings is then suspended. The miners float back to the older towns, to the Dalles and Portland, in Oregon, and San Francisco, in the fall, and spend their summer savings, and start out in the spring for the old diggings, if no newer and more fabulous ones have since been discovered.

"It is probable that the sure progress of the Territory will await the profitable workings of the ores yielding from ten dollars to twenty-five dollars a ton, as is already admitted to be true of California, and of Virginia City, Nevada, and will probably soon be proven in Reese River and in Colorado. And this can hardly be done until quicker and cheaper communication is provided. Only the rare veins, only the choice ore, in any of these States can be worked to much profit, so long as all machinery, all food, all goods, used in the business and for the people, have to pay a frightful tariff of from ten to thirty cents a pound, and labor is from four to eight dollars a day. California has the advantage over her rivals in these respects now; and I repeat that it seems to me mining is likely to be as profitable in this State for the next five years, taking all things into consideration, as in any of the new regions. The others must wait for the railroad to give real and permanent and steady development and prosperity to greater apparent capacities."

COUNTIES.—Idaho is divided into the eight following counties. The figures annexed show the total vote cast in each at the election for delegate to Congress in 1866:

Ada, 713; Alturas, 320; Boise, 3,285; Idaho, 400; Nez Perce, 385; Oneida, 169; Owyhee, 1,226; Shoshone, 66. The total vote cast in the Territory for Congress was 6,564. E. D. Holbrook, of Idaho City, was the successful candidate at this election. The Territorial Governor of Idaho is D. W. Ballard.

TOWNS AND SETTLEMENTS.—Boise City, the capital, and Idaho City have been already described. The portions of Idaho first settled and explored were embraced within that part of the old Territory of Washington, comprising the counties of Shoshone, Nez Perce, and Idaho. Shoshone County, or rather what is left of it, lies north of the South Fork of the Clear Water River, and embraces the original Nez Perce mining region of Oro Fino and Perce City, the latter place being the

county town, and five hundred and thirty miles from Olympia, the capital of Washington Territory. Nez Perce County comprised a belt of land lying north of Clear Water River, and extending from Snake River eastward to the Bitter-root Mountains, which form the eastern boundary of Idaho. A settlement called Elk City, in this county, was the center of the gold mining district. The county seat was Lewiston, at the head of navigation on the Snake River. Nearly all the travel to the Salmon River mines passed through Nez Perce County. Kansas Prairie, another settled tract, included a fertile agricultural expanse within the limits of this county. Idaho County embraced a large breadth of land lying north of the dividing ridge between the Clear Water and Salmon Rivers. The greater portion of the tract abounds in auriferous wealth. The county town was Florence, quite a flourishing settlement, containing from three to five thousand inhabitants. Before the Territory of Idaho was organized, Florence was the largest town in Washington Territory.

Beside those already mentioned, the following are among the principal towns and settlements in Idaho: Centerville, Placerville, and Rocky Bar, in the central portion; Ruby City and Silver City, in the south-west, and Fort Hall, in the south-east part. Fort Hall is situated on the left or south bank of the Lewis or Snake River, in latitude 43° , and longitude $112^{\circ} 29'$. It formerly belonged to the Hudson Bay Company, and was an important station on the route to Oregon.

RIVERS.—The principal river in Idaho is the Lewis or Snake River. It is the largest tributary of the Columbia River, rising on the east side of the Rocky Mountains, near latitude 43° north, and longitude 109° west. Passing through the mountains into Idaho, it flows south-west and then north-west to about latitude $43^{\circ} 45'$ north, and longitude $116^{\circ} 45'$ west, where it is again diverted to the north, forming, in part, the boundary between Idaho and Oregon, and between Idaho and Washington. In latitude $43^{\circ} 30'$ and longitude 117° , it bends sharply to the west, and making soon afterward, in Washington Territory, a sweep north-west and south-west, joins the Columbia in latitude $46^{\circ} 6'$ and longitude $118^{\circ} 40'$, after a course of 900 miles. It has numerous affluents, most of which are small. The principal are the Punshly, Middle, Owyhee, Big Wood, Fayette, Powder, the South Boise, the Boise, North Branch or Salmon, and the Kooskooskia or Clear Water. The Spokane River, in the northern part of Idaho, runs into Washington Territory and empties into Clark's Fork of the Columbia. Green River, which, by its union with the Grand, forms the Colorado, takes its rise among the mountains in the southern part of Idaho, and flows southwardly into Utah.

GREAT MINERAL RESOURCES OF IDAHO.—It is computed, from reliable information, that the entire yield in gold from the mines east of the Cascade Range, during the season of 1861, was nearly five million dollars, and that the yield of '62 and '63 approximated to twenty millions. In his annual message to the Territorial Legislature, Governor Caleb Lyon stated that in 1865 over seventeen million dollars' worth of gold and silver had been produced in Idaho, and that the yield was

increasing The following extract from his message, exhibits the mineral resources of the Territory:

"A bird's-eye view of the accumulating discoveries in our mineral resources, reveals the fact that we have no less than three thousand gold and silver-bearing quartz ledges, graded in their value as in their richness, and new discoveries and new locations are being made almost daily. The width of these lodes or leads varies from three to thirty feet, and they present from thirty to two hundred dollars per ton. Located usually where water-power and timber are in abundance, they offer the highest inducements to enterprising capitalists, whose investments can rarely fail of being of the most remunerative character. Among the other useful ores which have been discovered within the past year, cinnabar, copper, lead, and iron, in many forms, are of the first value; yet platina, antimony, nickel, bismuth, iridium, and rhodium, simple or compounded with other materials, are found in various localities.

"But this is not all; beds of the best coal, both anthracite and bituminous, with rock-salt, sulphur, and gypsum, (better known as the fertilising plaster of commerce,) while the most precious of gems—the diamond—has been discovered in our gulches; all give you a feeling foretaste of the illimitable extent of Idaho's varied mineral wealth, when the hand of man shall have unbosomed her hidden treasures. The wide extent of our auriferous placers, only a moiety of which has been well prospected, checked as they are by auriferous quartz lodes and leads, are rivaled only by argentiferous mountain ledges, striated, laminated, and foliated with silver in chlorides and sulphurets—arsenical, antimonial, and virgin. This presents a fabulous array of marvelous deposits, which will require the industry of ages to develop and exhaust."

MONTANA.

MONTANA is the newest of our organized Territories. The act of Congress for its organization was approved May 26, 1864. It lies along upon the Rocky Mountains, above Colorado and Utah, mostly on the western slopes, but still going out into the eastern valleys, whose waters feed the Missouri River, and find their way into the Atlantic Ocean. Idaho lies beyond Montana to the west, among the Blue Mountains and the upper waters of the Columbia River, or its Snake River branch. The following are the boundaries of Montana, as designated in the organic act:

"Commencing at a point formed by the intersection of the 27th degree of longitude west from Washington with the 45th degree of north latitude; thence due west on said 45th degree to a point formed by its intersection with the 34th degree of longitude west from Washington; thence due south along the 34th degree of west longitude to its inter-

section with the 44th degree and 30 minutes of north latitude; thence due west along said 44th degree and 30 minutes of north latitude to a point formed by its intersection with the crest of the Rocky Mountains; thence following the crest of the Rocky Mountains northward to its intersection with the Bitter-root Mountains; thence northward along the crest of said Bitter-root Mountains to its intersection with the 39th degree of longitude west from Washington; thence along said 39th degree of longitude northward to the boundary line of the British Possessions; thence eastward along said boundary to the 27th degree of longitude west from Washington; thence southward along said 27th degree of longitude to the place of beginning."

This makes Montana the northernmost Territory, next to the States east of the Missouri Valley. It is a good mining and agricultural region. It was settled by emigrants from the Northern and Western States. The total population was put down in 1865 at 35,822. Large accessions have been made since the census was taken. Mining and agriculture are the principal occupations of the people, with freighting and merchandising.

COUNTIES AND COUNTY TOWNS.—Montana has the following counties and county towns:

COUNTIES.	COUNTY TOWNS.	COUNTIES.	COUNTY TOWNS.
Beaver Head,	Bannock City.	Gallatin,	East Gallatin.
Choteau,	Fort Benton.	Jefferson,	Jefferson City.
Deer Lodge,	Silver Bow.	Madison,	City of Virginia.
Dawson,	Fort Galpin.	Missoula,	Hell Gate.
Edgerton,	Helena.		

TERRITORIAL GOVERNMENT.—The following were the Federal and Territorial officers in Montana in 1865:

Governor, Sidney Edgerton, residence at Bannock City; Secretary, John T. Coburn; Attorney-General, E. B. Neally, residence at Virginia City; United States Marshal, George M. Birney; Assistant United States Marshal, J. X. Beidler; Surveyor-General, M. Boyd; Auditor, John S. Lott; Treasurer, John J. Hull; Superintendent of Public Instruction, T. J. Dimsdale; Assessor, T. C. Everts; Collector of Internal Revenue, N. P. Langford.

The Judges of the Montana Supreme Court were: First District, H. L. Hosmer, Chief Justice, residence at Virginia City; Second District, L. P. Williston, Associate Justice, residence at Bannock City; Third District, Leroy E. Munson, residence at Helena.

The delegate to the Thirty-ninth Congress from Montana was Samuel McLean, residing at Bannock City.

The present Governor of Montana is Greene C. Smith.

NOTES ON THE LAWS OF MONTANA.—The Probate Court has jurisdiction in all civil cases where the amount in controversy is less than \$2,500.

The exemption laws are liberal, exempting homesteads worth \$3,000, farming tools, teams, seed, etc., to farmers, and are equally liberal to other occupations.

The limitation laws are similar to those of Ohio, except as to foreign indebtedness, which, if not contracted for property coming to Montana, or for passage thither, can not be collected after the lapse of three months from the time the liability accrued.

MONTANA MINES.—Montana is very promising, richer, it is said, than any other gold or silver States or Territories. The placer diggings are paying largely, and the quartz seems to be richer than a great many others, and a great many mills are going in.

Alder Gulch is the theater of the original and most extensive gold-mining in Montana. Virginia City is the first and largest town here. About thirty millions of gold have been taken in the various diggings of the gulch, and the quartz mines at its head among the hills are now very popular and promising. The present population of the Alder Gulch region is about 14,000. About 140 miles north and east, more immediately among the Rocky Mountains, and on their eastern slopes, a rich gulch was recently discovered, called the "Last Chance," near which there sprung into existence in a few months the populous mining town of Helena City. The neighboring valleys and gulches were also found to be rich in gold and silver, both washings and quartz. Many millions of treasure have already been obtained from this section of the Territory. The country is described as picturesque and beautiful. It is watered by the head-streams of the Missouri River, the Jefferson and Gallatin Rivers, and their tributaries; and Fort Benton, the head of navigation on the Missouri River, is but 175 miles east from Helena.

The gold discoveries next extended across the mountains to the headwaters of the Blackfoot, where some important deposits have been opened. East of the Missouri River, during the summer of 1865, discoveries were made at Confederate Gulch, where Diamond City, containing four to five thousand inhabitants, has since gathered. It is reported that the deposits there are of great richness. Gold lodes occur every-where in connection with gold diggings. One of the best gold-lode mining districts is on Madison River, in what is called the Hot Spring district.

The ores of Montana are reported by scientific men to be much richer than those of California, which yield an average of \$20 per ton. The great majority of the lodes of Montana promise an average of four times that amount. There are few sulphurets of iron and copper carrying gold in Montana, such as prove so troublesome in Colorado. This is owing to the fact that the formation is so open and perforated by water that the sulphurets have been decomposed. For the same reason miners in Montana are not troubled with water, and are saved the heavy expenses of pumping.

The silver ores are in the form of argentiferous galena, which must be smelted, as Western lode ores are, and the silver separated from the lead by cupellation. The silver ores are much more trustworthy than those yielding gold; and experience has already shown that silver-mining will be in Montana more profitable than gold-mining. The veins are more uniform in the yield and last better. The large and

continual supply of water is of immense benefit to mining operations in Montana, as well as the facility of movement, the country everywhere abounding in natural roads, which do not easily become broken up. The veins of copper ore have been traced for a great extent, and the ores are found to yield from 33 to 65 per cent. But little attention is as yet given to this metal, as gold and silver monopolize the time and care of the people.

EMIGRATION TO MONTANA.—Montana, like Idaho, presents great inducements to emigrants, and her population, estimated in 1865 at considerably over thirty thousand, is composed, in great measure, of the men who built up Colorado so rapidly, and who, upon the exhaustion of the surface deposits, left that Territory for the richer diggings just discovered in the north. When her placers become exhausted, of which there seems no immediate probability, Montana must undoubtedly exert a temporary diminution of her population; but in the development of her gold-bearing quartz veins, of which the number is almost incalculable, she will have the elements of a steady and permanent increase. The population at present centers around the mining towns of Virginia City, Helena, and Diamond City.

One of the most surprising geographical facts about Montana is, that it is reached by steamboats from St. Louis. Travelers and freight are transported by steamboat, and, without transshipment, from St. Louis to Fort Benton in the heart of Montana, and freights, in the proper season of navigation, can be got to Montana quicker than to Denver City. This cheap mode of communication will be of vast importance to the new Territory, and light-draught boats will insure speed and safety. The river voyage from St. Louis to Fort Benton is made in twenty-eight days, and freight is carried at ten cents per pound.

TOWNS AND SETTLEMENTS.—The principal towns and settlements in Montana are the following: Virginia City and Gallatin are situated in the original mining district in the south-west portion of the Territory. The former is the largest town in the Territory, and its present capital. Its population is estimated at ten thousand, though, like that of most other mining towns, it is probably variable. Helena, on the Missouri River, 175 miles from Fort Benton, is the center of a rich mining region, and has seven or eight thousand inhabitants. Silver City, in the same section, is a growing and prosperous town. Bannock City, the former capital of the Territory, is in the south-west corner, among the mountains, and on the head-waters of the Missouri.

Fort Benton, an important military post, is situated on the north side of the Missouri River, in latitude $47^{\circ} 20'$, and longitude $109^{\circ} 45'$. It is about ten miles below the Great Falls.

RIVERS.—The Missouri River is formed in the south-west portion of Montana Territory by the confluence of the Wisdom and Jefferson. Its course is north and east, passing out of Montana near its north-east corner into the Territory of Dakota. The following branches of the Missouri are altogether or partially within the bounds of Montana: Madison, Gallatin, Medicine, Bear's or Maria's, with its principal branch the Leton, Milk River, and the Yellowstone, with its

principal branches, the Big Horn, the Rosebud, Tongue, and Powder Rivers.

Clark's Fork of the Columbia River is formed in the western portion of Montana by the commingling of the Blackfoot and Hell-gate streams, and running a north-westerly direction, passes into the north-west part of Idaho. The Flathead River, a branch of Clark's Fork, rises in the north-west part of Montana, and runs north through Flathead Lake.

Flatbone River, which rises in the British Possessions and runs into Montana, passes through its north-west corner back into British Columbia.

The Yellowstone River, taking its rise among the mountains in the western or south-western portion of Montana, drains with its numerous tributaries nearly the whole of the central and eastern portion of Montana, as well as of the south-western section of Dakota. It collects the waters of the small streams which flow between the Black Hills and the Rocky Mountains. Its general course is east and north-west, crossing the boundary line between Montana and Dakota, and entering the Missouri a short distance east of that line. It is eight hundred yards wide at its mouth, or about equal in size to the Missouri at the point of junction.

INDIAN TERRITORY.

THIS is a tract of country set apart by the Government of the United States as a permanent home for the aboriginal tribes removed thither from east of the Mississippi River, as well as those indigenous to the territory. It is bounded on the north by Colorado and Kansas, south by Missouri and Texas, (from which it is partly separated by Red River,) east by Arkansas, and west by Texas and New Mexico. Indian Territory lies between $33^{\circ} 30'$ and 37° north latitude, and between $94^{\circ} 30'$ and 100° west longitude, being about 320 miles long and from 35 to 220 miles in width, including an area of perhaps 65,127 square miles. The recently formed State of Kansas and a portion of the south of Nebraska were constituted from territory originally included within the so-called Indian Territory.

FACE OF THE COUNTRY.—There is a general inclination of the country from the base of the Rocky Mountains on the western border of Indian Territory, toward the Mississippi River, with a slight inclination to the south-east. A vast, barren, and sandy tract, generally known as the Great American Desert, occupies the north-west portion of the Territory. The rest of the Territory spreads out, for the most part, into undulating plains of great extent, with the exception of the Ozark or Washita Mountains, which enter the east portion of the Indian Territory from Arkansas. This territory, however, has been too imperfectly explored to enable us to speak with great precision of its surface.

RIVERS.—Indian Territory is drained by the Arkansas and Red Rivers, with their tributaries; these all have their sources among or near the Rocky Mountains, and flowing in an east or south-east direction, across or on the borders of the Territory, discharge their waters into the Mississippi. None of these rivers have their source within the Territory. The Red River forms part of the south boundary, while the Arkansas passes through Indian Territory into the State of the same name. The tributaries of the Arkansas are the Cimarron, Neosho, Verdigris, and the North and South Forks of the Canadian; those of the Red River are the Washita, False Washita, and Little Red River; all having nearly an east course, except the Neosho, which runs south. These rivers have generally broad and shallow channels, and in the dry season are little more than a series of sandy pools; in the winter and spring only are they navigable by flatboats and canoes, or for steamboats (if at all) near their mouths. The Arkansas and Red Rivers are both navigable for steamboats, but to what distance we are not accurately informed. The Arkansas has a course of about 2,000 miles, and Red River of 1,200 miles.

CLIMATE.—Of the climate we have little definite information, but that of the eastern portion is probably similar to the climates of Arkansas and Missouri, on which it borders. The summers are long and extremely dry, the days being very hot, with cool nights.

SOIL AND PRODUCTIONS.—On this point our information is limited. The east portion, occupied by the partly-civilized Indians, is represented as fertile prairie land, interspersed "with mountain and flat hills," for an extent of 200 miles westward from the boundary of Arkansas. On the borders of the streams are strips of woodland, mostly cotton-wood and willows; the country is, however, generally destitute of timber. The Cross Timbers, thus described by Captain Marcy, are partly in this Territory: "A narrow strip of woodland, called the Cross Timbers, from 5 to 30 miles wide, extending from the Arkansas River some 500 miles in a south-west direction to the Brazos, divides the arable land from the great prairies, for the most part arid and sterile." The north-west portion of the Territory is mostly a barren, dreary waste "of bare rocks, gravel, and sand," destitute of all vegetation, except, perhaps, a few stunted shrubs, "yuccas, cactuses, grape-vines, and cactaceous plants." The water is brackish, and the surface in many places covered with saline efflorescences. The eastern prairies are well adapted to grazing, and the products of the adjoining States flourish there. Vast herds of buffaloes and wild horses roam over its prairies, and antelope, deer, prairie-dog, and some other animals are found; wild turkeys, grouse, etc., are among the birds.

Taken as a whole, probably no portion of the country of equal extent within the territorial limits of the United States is better adapted to stock-raising than the country owned by the Indians. Prior to the late civil war, they had engaged in the business extensively, and many of them owned herds of cattle numbered by thousands.

INHABITANTS.—This Territory is chiefly inhabited by immigrant Indians of various tribes and nations, and to some extent by indige-

nous tribes. The Cherokees were originally settled in the north, the Creeks and Seminoles in the middle, and the Choctaws and Chickasaws in the south. In the north-east, between the Neosha River and the eastern boundaries, are small remnants of several tribes, as the Quapaws, Senecas, etc.; and the western and other portions are roamed over by the Osages, Camanches, Kioways, Pawnees, Araphoes, and other nomad tribes. The several immigrant nations, as the Choctaws, Cherokees, Creeks and Seminoles, have had distinct and separate districts allotted and marked out by treaty, with boundaries specially defined, each with its own government, subject to the eminent sovereignty of the United States. Now, the several nations form distinct communities. Some of the removed tribes have made considerable advances in agriculture and the industrial arts, and have established schools and churches, while others are relapsing into indolence and vagrancy, and following the common fate of the savage when in contact with the civilized man, are fast diminishing under the influence of intemperance and vicious connections with abandoned whites.

According to the United States census of 1860, the Choctaw nation numbered within its bounds 3,166 persons; the Cherokee, 3,234; the Creek, 2,247; and the Chickasaw, 1,076. These four nations had at that time 7,369 slaves. Other tribal Indians made the aggregate population of the Territory 65,680. The capital is Taklequah.

Indian Territory forms a part of the great Louisiana tract purchased by President Jefferson from France in 1803. The United States Government have military stations at Fort Gibson, on the Arkansas; Fort Towson, on the Red; and Fort Washita on the Washita. The Territory of Kansas, with a portion of Nebraska, was formed from what was formerly called Indian Territory, in 1854.

THE PACIFIC RAILROAD.

UNDER date of San Francisco, August 20, 1865, the author of the work, "Across the Continent," to which we have several times referred in the second part of this volume, writes as follows. We extract freely on this great national topic of absorbing interest, and to none more so than to the people of the West, and to those designing settlement in the new and growing States and Territories between the Missouri and the Pacific:

"It is touching to remember that between Plains and Pacific, in country and on coast, on the Columbia, on the Colorado, through all our long journey, the first question asked of us by every man and woman we have met, whether rich or poor, high or humble, has been, 'When do you think the Pacific Railroad will be done?' or, 'Why don't or won't the Government, now the war is over, put the soldiers to building this road? and their parting appeal and injunction, as well, 'Do

build this Pacific Road for us as soon as possible—we wait, every thing waits for that.' Tender-eyed women, hard-fisted men, pioneers or missionaries, the martyrs and the successful, all alike feel and speak this sentiment. It is the hunger, the prayer, the hope of all these people.

"Many of the obstacles to this great work grow feeble in travel over its line. Want of timber, of water, coal for fuel, the steep grades and high ascents of the two great continental ranges of mountains to be crossed, the Rocky and the Sierras, and the snows they will accumulate upon the track in the winter months, these are the suggested and apparent difficulties to the building and operating of the Pacific Railroad. There is plenty of good timber in the mountains, and the soft cotton-wood of the Plains can be kyanised (hardened by a chemical process) so as to make sound sleepers and ties. There are sections of many miles, even perhaps of two hundred, over which the timber will have to be hauled; but the road itself can do this as it progresses, taking along over the track built to-day the timber and rails for that to be built to-morrow. As to water, artesian wells are sure to find it in the vacant desert stretches, which are neither so long nor so barren of possible water as has been supposed.

"The fuel question is perhaps more difficult to solve as yet. The Sierras will furnish wood in abundance, and cheaply, for all the western end; we know there is coal in the Rocky Mountains; and we were told almost every-where over the entire line that it had been or could undoubtedly be found in Kansas, on the Plains, among the hills of the deserts. But suppose the supplies of food for steam have to be carried over a few hundred miles of the road, east and west from the Sierras and the Rocky Mountains, that is not so hard a matter—certainly nothing to daunt or hesitate the enterprise. We shall soon learn, too, to make steam from petroleum, and that is easily transported for long distances; besides which, prospectors are finding it every-where from the Missouri to the Pacific. Build the road, and the intermediate country will speedily find the means for running it.

"Now as to difficulties of construction, heavy grades and high mountains, and the winter snows as obstacles to continuous use.

"The first third of the line, from the Missouri River to the Rocky Mountains, is mere baby-work. Three hundred men will grade it as fast as the iron can be laid. It is a level, natural roadway, with very little bridging and no want of water. It is a shame all this section is not finished and running already. The first of January, 1867, ought now to be the limit for its completion. From here (San Francisco) to Salt Lake, there are apparently no greater obstacles to be overcome than the Western Road from Springfield to Albany, the Erie and the Pennsylvania Central, have triumphantly and profitably surmounted. There are various contesting routes; northerly by the North Platte and the South Pass; by the South Platte and Bridger's Pass, which is the route we traveled in the stage; or, more direct still, from Denver through the present gold-mining region of Colorado by Clear Creek and over the Berthoud Pass; or again by a kindred route to the last, up Boulder Creek and over Boulder Pass, both these last two entering

the 'Middle Park' of the Mountains, and through that to the headwaters of Salt Lake Basin. The Berthoud and Bowlder Pass routes would probably involve the higher grades and more rock-cutting, and in winter deeper snows; but they would pass through a richer country, avoid the deserts of the north, and save at least one hundred miles of distance. A new road for the overland stages is this very season being cut through the Berthoud Pass route by the help of United States soldiers from Utah, and the stage line is expected to be transferred to it next spring. But by the Bridger or South Pass route the railroad can surmount the eastern slope of the Rocky Mountains with the greatest ease. Our stage teams trotted up the hardly-perceptible grades by the Bridger route, without any effort. Coming down into Salt Lake Valley, there would be rougher work; but there are several considerable streams along whose banks the track could be brought, I am sure, with no greater labor or expense than has been incurred in a dozen cases by our Eastern railroads.

"From Salt Lake to the Sierra Nevada are two routes—southerly through the center of Nevada, striking Austin and Virginia City, the centers of the silver mining region—which is the present stage and telegraph route—and northerly by the Humboldt River. The former would pass more directly through the chief and prospective populations, but it would encounter a dozen or fifteen ranges of hills to be crossed, and find little wood and scant water. The Humboldt route would be more cheaply built, and goes through a naturally better country as to wood, water, and fertility of soil. It is generally conceded to be the true, natural roadway across the Continent. The emigration has always taken it. If the railroad is built through it, Virginia City and Austin will be reached by branches dropping down to them through their neighboring valleys.

"Now we reach the California border, and the toughest part of the work of the railroad—the high-reaching, far-spreading, rock-fastened, and snow-covered Sierra Nevadas. But the difficulties here are mitigated by plenty of water and timber, and by the near presence of an energetic population, and are already being practically overcome by the energy and perseverance of the California Pacific Railroad organization. I only wish the East would get to Salt Lake with their rail so soon as the West can and will with theirs.

"Let me state the condition of the road at each end of the line.

"Congress has given princely bounties to the enterprise, all that could be expected, every thing that was asked. Government bonds are loaned to it to the amount of sixteen thousand dollars a mile through the plains, and forty-eight thousand dollars a mile in the mountains; besides which, half of all the land each side of the road for twenty miles deep, is donated outright to the companies doing the work. The Union Pacific Railroad Company is recognized at the East, and the Central Pacific Railroad Company here (at San Francisco), as entitled to this bounty, and are respectively authorized to construct the road from their starting points until they meet. The companies are authorized to issue their own bonds to an amount equal to those granted by the Gov-

erament, and secure them by a first mortgage, the Government less taking the second place in security.

"The business of supplying the population of Colorado, Utah, and Montana, at least one hundred and fifty thousand persons, invites the speedy construction of the road from the East. This business for 1864 is estimated at forty million pounds, and for 1865 at two hundred millions, and employed last year nine thousand wagons, fifty thousand cattle, sixteen thousand horses and mules, and ten thousand men as drivers, laborers, and guards; and the sum paid for freight in the former year is estimated by one authority at enough to build the railroad the entire distance, at the cost of forty-eight thousand dollars the mile! And during the months of May and June this year (1865), counting both the emigration and the freight trains, there passed west over the plains full ten thousand teams and fifty thousand head of stock, according to data furnished from Fort Laramie and the junction of the overland routes on the Platte River. The shipment of supplies for the United States troops on the plains and in the mountains this season is alone over eleven million pounds.

"All these statistics may not be perfectly accurate; but they have a substantial basis of fact, and with such generous gifts as the Government makes, and with such large railway interests behind to be benefited by further extension of railway lines to the west, they would seem to justify and to demand a rapid construction of the road out from the Missouri River, especially when for the first five hundred to six hundred miles of that road there is scarcely more required than to scrape a place in the soft soil for sleepers and ties and iron. And yet, though three to four years have passed since the company accepted the bargain of the Government and assumed its responsibilities, not a mile of the main road is running from the Missouri west. The lower branch from Kansas City is open to Lawrence, forty miles, and graded to Topeka, sixty miles; but from Atchison to Omaha there is no iron down, and only small sections graded or half-graded.

"Here in California, however, there is more life and progress. Energy and capital are not, perhaps, the best directed possible; there has been, and still is, somewhat of controversy and waste of power as to the true route, but there are earnestness and movement of the right sort, and the track is fast ascending the Sierras, on its progress eastward. It has no immediate way business to tempt it but the trade of Nevada, with thirty thousand population—much less, therefore, than that which invites the laying of the rails across the prairies to the Rocky Mountains; but this business has constructed and amply paid for two fine toll-roads over the Sierras, and was, until a few days ago, building two railroads in their tracks. There being free water-carriage from San Francisco to Sacramento, these rival roads (both carriage and rail) have their base at the latter points, and branch off right and left into the mountains, and cross the summit of the latter some thirty or forty miles apart, coming together at a common point in Nevada on the other side; namely, Virginia City. The distance between Sacramento and Virginia City is about the same, one hundred and sixty miles, by each road, and

their rivalry has given excellent accommodations for travel and traffic, and helped to push forward the railroad tracks on both sides.

"The original and heretofore most populous wagon-road was that by Placerville and Lake Tahoe. The railway track on its line is now about forty miles from Sacramento, or nearly to Placerville, which lies among the foot-hills of the mountains. The rival of the Placerville route, though opened since, has won the title and the Government bounty of the Pacific Railroad, and has this season pushed its iron tracks ahead of the former, and so henceforth must have every advantage for both traffic and travel. Indeed, within a few days, its friends have bought a controlling interest in the railway section of the Placerville route, and will probably put a veto upon the construction of the latter road beyond that town. It is called the Dutch Flat and Donner Lake Route, as well as the Central Pacific Railroad, and lies to the north of the other.

"Our party made a very profitable and interesting excursion over the route of the Central Pacific Road from Sacramento to Donner Lake, on the eastern slope of the mountains, by special train and coaches, and along the working sections on horseback. The track is graded and laid, and trains are running to the new town of Colfax, which is fifty-six miles from Sacramento. Grading is now in active progress on the next two sections, to Dutch Flat, twelve miles, and Crystal Lake, thirteen miles further, with a force of about four thousand laborers, mostly Chinese. Though these sections are through a very rough and rocky country, the work will certainly be done to Dutch Flat by spring, and Crystal Lake early next fall. Then the rails are within fifteen miles of the summit of the Sierras. The toughest job of the whole line lies in these fifteen miles up, and the three or four miles down to Donner Lake on the other side. This must hang for two or three years, it seems to me. There will be some tunneling, probably, and much heavy rock-cutting for several miles along the summit, which is seven thousand feet above the sea level. The road must be apparently cut into a wall of solid rock, and then be covered by a roof to keep off the snows; but the later surveys soften the anticipated severity of the work, and the company and its contractors are sanguine of mastering all the difficulties of the summit sections in two years.

"The wagon-road goes down from the summit to Donner Lake at the rate of about four hundred feet to the mile, and the railway track will have to be wound in and out for ten or more miles, in order to get ahead two or three miles, and reach the level of the lake, where it can be run readily down by the Truckee River into the valleys and plains of Nevada. The road ascends the mountains on this (the California) side by a very regular and nearly uniform grade, never exceeding one hundred and five feet to the mile, which is less than the highest grades of the Baltimore and Ohio Railroad, to which the act of Congress limits this road.

"In going down the other side, no grade will exceed one hundred and five feet, and after reaching Donner Lake the grade will be reduced to forty feet. But the company does not purpose to wait for the full

construction of the track over the summit before pushing the work on the line beyond. While that is advanced as fast as possible, they will commence next spring at Donner Lake, and proceed down the mountains, and out into and through Nevada as rapidly as may be, eager to absorb as much of the whole enterprise, and meet the road coming west at a point as far east as they can.

"So far the company have used none of the United States bonds granted by Congress in aid of the work. Some two and a half millions in these bonds are now due. The company can issue an equal amount of their own bonds, guaranteed by a preceding or first mortgage; but none of these, also, have yet been used. They also have available a million and a half of other bonds, on which the State of California pays seven per cent. interest in gold for twenty years. Here are six millions and a half of good securities now on hand for prosecuting the work, besides what is earned as the road progresses, and the power to anticipate the issue of their first mortgage bonds at the rate of forty-eight thousand dollars for a mile of mountains and sixteen thousand dollars for a mile of plain, for one hundred miles in advance of construction. The work so far has been done out of about a million of paid-up stock, and subscriptions of the county of Sacramento of three hundred thousand dollars, the county of Placer of two hundred and fifty thousand dollars, and of San Francisco of four hundred thousand dollars, and the profits of that part of the road in running order. Of these sums, nearly a million is still left, and as the road has gone so far as to substantially secure a monopoly of all the business over the mountains, the profits on its completed section will be constantly increasing. Then, besides all this, there are between eighteen and nineteen millions of the twenty millions capital stock of the road yet unsubscribed for. Sometime, though not at present, this will be paying property; and it may suffice even now for the profits of the contractors. The company thus feel strong financially, and, though much of their securities are not now marketable except at a discount, they are confident there need be no further delay for the lack of means, and are increasing their working force upon the road as fast as laborers can be had. All the Chinese that offer, or that can be encouraged to emigrate from home, are employed, and it is expected that five thousand will be at work on the road before the present season closes.

"There is really nothing unreasonable in demanding that rails should be laid and trains running over half the line between the Pacific Ocean and the Missouri River in two years and a half, over two-thirds of it in another year, and the entire distance unbroken in five years. There are short sections in the mountains that may require three or even five years to work them out; but the great bulk of the way can be graded and laid with rails in three years. The California Pacific Railroad Company, led by some of the best men of the State, with Ex-Governor Stanford for President, say, calmly and distinctly, in their annual report just published, that they will take their completed line into Salt Lake City in three years. I believe they can and will do it, with anything like an easy money and labor market. And it is just as prac-

ticable for the road from the east to reach the Rocky Mountains in twelve or eighteen months, and to span these mountains in two years.

"Next spring should see as many men at work on the eastern line as there will be on the western; the fall, fifteen to twenty thousand along the entire route; 1867 should count fifty thousand shovels, and picks, and drills, leveling the paths for the national highway; and in 1868, the hungry hearts of these people of the Pacific States should dance to the music of a hundred thousand strong—music sweeter and holier, even, than all the martial bands of the new Republic!"

As appropriate to the foregoing, we annex the following from a number of the *Alta Californian*, issued in the latter part of December, 1866:

"The bell is ringing on the Sierra Nevada and in the valley of the Platte; it is time to look out for the locomotive, and prepare for its approach. The Pacific Railroad is no longer a wild dream of an untrustworthy promise; it has been placed on the basis of a sound pecuniary investment, and its prospects are so good that it is progressing with a speed almost unequaled in the annals of railway history. It has already advanced so far as to have an important economical value; and before twelve months we may expect to see travelers go and come across the continent every day with the help of the rail.

"The two nominal and intermediate termini of the route are Omaha, on the Missouri River, and Sacramento, although a larger city than either can grow to be, must be the ultimate and real terminus or end. Traveling westward from Omaha, we reach Fort Kearney in 250 miles, the Forks of Platte in 350 miles, Julesburg in 450, Denver in 600, Salt Lake City in 1,200, Austin in 1,600, Virginia City in 1,800, and Sacramento in 1,975 miles.

"But the road is now in running order from Omaha to Fort Kearney, 250 miles, at the eastern end, and from Sacramento to Alta, 70 miles, at the western end, so that 1,655 miles only are to be built; and the Union Pacific Railway Company has promised that the cars shall run to the Forks of Platte on the 1st of January; so the distance will have been reduced another hundred miles by the beginning of 1867. Peculiar influences are driving the work ahead at both ends. In the first place, Congress has provided that each company shall have as much of the road as it can build; so that the company which advances with the most rapidity gets the most. And the trade of the interior of the continent makes it of vast importance to get as much as possible. It is now evident that the Pacific Railroad is to be one of the most profitable investments in the country.

"Stages can average about six miles an hour, and at this rate the 1,655 miles of stage road between Alta and Fort Kearney can be traversed in less than twelve days, while the trip from San Francisco to Alta can be made in ten hours, and that from Fort Kearney to New York in less than four days. Thus we see that, in case of need, the trip from the metropolis of the East to that of the West of our continent can be made regularly within seventeen days. By two hundred miles of additional rail, one day's time is saved, and before the

end of next year the trip will be made to New York regularly, overland, in fourteen or fifteen days, and so many travelers will go that way that the stage company will find it profitable to make better time and provide better stages along the road. It is not improbable that within three years we shall be able to make a continuous trip to New York by rail. So let us be prepared for the approach of the locomotive."

ALASKA,

LATE THE RUSSIAN AMERICAN POSSESSIONS.

By a treaty negotiated at the city of Washington by the recognized authorities of the United States of America and the Czar of Russia, the ratification of which by the respective powers was exchanged in the early months of the present year (1867), the United States acquired the property in, and jurisdiction over an extensive region of country, theretofore a domain of the Russian Empire, in the north-western quarter of the North American continent. In such light estimation were these possessions held, so late as the closing years of the last century, as scarcely to be recognized on the authentic maps of that time as composing a portion of the Empire; the only portion thus delineated being that link of the Aleutian chain of islands between Behring Sea and North Pacific Ocean, nearest to Asia.

TITLE.—The Russian title to these possessions is derived from prior discovery, and dates from the year 1728. The Czar (Peter the Great) died in the winter of 1725; but, several years prior to that event, his active genius had been exercised with the problem as to whether Asia and America were really distinct continents, separated by the sea, or whether they constituted one undivided body, whose remote parts were designated by different names. To solve that question, that enlightened monarch (who, with his own hands, had toiled *incognito* as a ship-builder in England and Holland) wrote to his chief admiral an order directing the fitting out of an exploring expedition in that direction. Before time had intervened for the execution of that order, the Czar was gathered to his fathers; but the Empress Catharine, faithful to the purposes of her liege, did not allow this anxious wish of his to fail. After three years of toil and hardship in the work of preparation and reaching the place of embarkation, the exploring party set sail, on the 20th of July, 1728, in a small vessel called the *Gabriel*, under the command of Vitus Behring, a Dane by birth, and a navigator of some experience. Steering in a northern direction from the place of embarkation, (which was on the opposite side of the Asiatic continent,) Behring entered the strait which bears his name, passing a large island, which he called St. Lawrence, from the saint on whose day the island was first seen. This island, which is included in the recent cession, may be regarded as the first point of Russian discovery, as it is also the first outpost of the North American continent. Behring pursued his voyage until convinced of the duality of the continents; and having penetrated 67° 30' north latitude, he turned back, and, by a dreary land journey, made his way to St. Petersburg, in March, 1730, after an absence of five years.

Eleven years later (1741), Behring was sent out on another expedition, with the rank of Commodore, to discover a passage to the frozen

sea. Crossing in the latitude of the Aleutian Islands, the two ships of the expedition were separated in a fog, Captain Tschirikow reaching the coast on the 15th of July, at about 56° north latitude, while the Commodore, three days later, got sight of the continent in latitude $58^{\circ} 28'$ north. Here Behring saw a high mountain, and, it being St. Elias' day, he called it Mount St. Elias. In the winter following, Behring died of scurvy, on the American coast, in what was afterward called Behring Bay, just south of Mount St. Elias. The eastern coast of the continent had already been discovered and occupied by the English, who pushed their settlements into the interior. The Russians, on the contrary, discovered and occupied only the coast, and that merely for carrying out the fur-trade.

EXTENT AND BOUNDARIES.—Alaska, or, as it is more familiarly known, "Russian America," comprehends all the north-west coast of the Pacific and adjacent islands north of the parallel of $54^{\circ} 40'$ north, and the portion of the mainland west of the meridian (about 141° west) of Mount St. Elias, including the group of Aleutian Islands. The Map of North America has habitually set apart a region in its north-western extremity, to which, without imparting much exact information, it has given the general appellation of "Russian Possessions." Inasmuch as that region is now part and parcel of the Great Republic, it becomes the citizens of that Republic to understand somewhat more definitely its location, extent, boundaries, and resources. By the treaty by which this region is ceded to the United States, the boundaries are fixed as commencing at the parallel of $54^{\circ} 40'$ north latitude, the line ascending Portland Channel to the mountains, which it follows on their summits to the point of intersection with the 141° west longitude, which line it ascends to the Frozen Ocean. This is the eastern boundary, separating this region from the British possessions, and is the same line as fixed by the treaty of 1825 between Russia and Great Britain. From the Frozen Ocean the western boundary descends Behring Straits, midway between the two islands of Krusenstern and Ratmanov, to the parallel of $65^{\circ} 30'$, just below where the continents of America and Asia approach nearest each other; and from this point it proceeds, in a course nearly south-west, through Behring Straits, midway between the Island St. Lawrence and Cape Choukotaki, to the meridian of 170° west longitude; and thence, in a south-westerly direction, traversing Behring Sea, midway between the Island Attou on the east, and Copper Island on the west, to the meridian of 193° west longitude; embracing the prolonged group of Aleutian Islands in the possessions now transferred to the United States, and making the western boundary of our country the dividing line which separates Asia from America.

The area of this extensive region is estimated at more than five hundred and seventy thousand square miles—or *more than double* the area embraced in the thirteen original States of the Union! Mount St. Elias (the point whence the boundary, as fixed by Great Britain and Russia, proceeds north to the Arctic Ocean) is 16,758 feet above the level of the ocean. Along the southern coast, from Mount St. Elias to Alaska Peninsula, the shore is well wooded; but beyond that no forests are seen

from the shore, though it is known that in the interior the forest extends for some distance, north of the Kvitchpak. The part of the mainland south of Mount St. Elias consists of a narrow belt, skirted on the east by a mountain ridge parallel to the coast, and has nowhere a width exceeding ten marine leagues. North of the 60th parallel the mainland forms a vast peninsula, extending, in a general north-west direction, toward Asia, and, at one point, approximates to within forty-eight miles of that continent. Throughout its western part, the prevailing feature is mountain; while that part lying along the Arctic Ocean, with the exception of a stretch between the meridians 141° and 146° west, (where the Rocky Mountains traverse the coast and terminate,) is a dead flat, often nearly on a level with the sea, and never more than twenty feet above it.

Geographies and encyclopædias afford but very inadequate means of acquiring precise knowledge respecting this vast region beyond a meagre outline of its boundaries and unreliable estimates of its population. Though possessing dominion over it for more than a century, the Russian Government there has been little more than a shadow. Its influence there has been scarcely perceptible. Governmental authority over, and paternal care for these outlying possessions were conveyed to the Russian American Fur Company, established, under charter from the Emperor Paul, July 8, 1799, with power to occupy and bring under the dominion of Russia all territories north or south of 55° not previously occupied and subject to the jurisdiction of another power. The present boundaries were fixed by treaties with the United States in 1824, and Great Britain in 1825. The British Government subsequently acquired the right of using the mainland south of 58° , and also the exclusive privilege of supplying the Russian posts with agricultural produce and provisions. The charter of the Company was renewed in 1838; and subsequently was added the Russian American Ice Company, which carried on a pretty extensive trade in that commodity along the lower Pacific coast. These charters have recently expired, or are about expiring by their own limitation.

So remote were these possessions from the imperial capital, and so completely isolated from the home Russian Empire, that they have not shared the vitality of a common country. Their life has been solitary and feeble; their settlements mere temporary encampments or lodges; their fisheries but petty perquisites of local or personal adventures rather than as belonging to the commerce of nations. And so intent upon the pursuit of their private enterprise have been the persons connected with these companies, that little have they heeded the policy of bringing their region to the acquaintance of the outside world, or inquiring after and developing its intrinsic resources. The trade of the Russian American Fur Company is very considerable, supplying not only Russia with furs, but also the markets of China, through Kiachta, on the Tartar frontier. The annual export is estimated at 10,000 seal, 1,000 sea otter, 12,000 beaver, and 25,000 land otter, fox, and marten-skins, and about 20,000 sea-horse teeth. The Hudson Bay Company, acting under authority derived from the British Government, had for a

time a lease from the Russian American Fur Company of the coast as far north as Mount St. Elias, and established two trading-posts among the Koloskians; but they found them so troublesome that they were glad to withdraw, and afterward traded along the coast with a steamer which was sent up at certain periods, and whose trading was always protected. The Koloskian Indians seldom visited Vancouver and Puget Islands without carrying back with them the head of a white man.

RUSSIAN-AMERICAN TELEGRAPH COMPANY.—Until very recently very little had been written throwing light upon the geography and condition of Russian America, and most of that little *locked up* to Western Europe and America in books written in the Russian language. Since Behring's voyages various European nations have sent exploring expeditions to this coast; but no expedition has been made into that region by the United States, if we except the expeditions made by private individuals seeking to find the best route for the Russian-American Telegraph. With this latter several assistants of the Smithsonian Institute were connected; and the results of their labors and observations, now at the Smithsonian Institute, afford much interesting information in regard to this territory, so that now we are able to draw upon our own countrymen for authentic information respecting the character of that country. To the courtesy of Professor Baird, of the Institute; to the observations of Col. Kennicott, a young naturalist, and chief of the Yukon division of the enterprise, who died in the midst of his labors, in May, 1867; to Mr. Bannister, who was with the expedition; and to Mr. P. McD. Collins, U. S. C. A., Amour River, the American public are largely indebted for the reliable facts now known of that region. We gladly avail ourselves of their contributions for most of the following details:

RIVERS.—The first river of importance that enters the sea in Alaska is the Stuchiene (or Stekeen,) which enters the territory from British Columbia, and traversing the Sitkan Archipelago, empties into the Pacific about 56° north latitude. This river was followed by the Telegraph exploring parties to the Cascades, where it breaks through the coast range of mountains dividing British Columbia from Alaska; and according to the reports of traders, is navigable for boats a considerable distance toward the Rocky Mountains. Game and fish are abundant along its course, timber good, and gold-mining already commenced by Americans. Natives, quite numerous during the fishing season, are friendly, and anxious to exchange furs, etc., for merchandise. Gold prospects similar to those of California in 1849.

The next river of consequence is Copper River, which, passing through the south-east corner of the main-land, enters the sea in view of Mount St. Elias, in about 60° north latitude and 120° west longitude. This river is of importance in consequence of its location, and by reason of the access it affords to the interior, its waters uniting by a lake with those of the Yukon, in the interior of Alaska, affording almost uninterrupted navigation from the coast on the Pacific, by way of the Yukon and the Kvitchpak, to Behring Sea, and furnishing commercial facilities to a large part of the south-west limit of the mainland.

We next come to Cook River, or Inlet, into which the Sushitna River discharges. This latter stream, which drains the valley between Kenay peninsula and the Chigmit mountains, is used by the Russian-American Company in connection with the Kooskokvim, to reach the Kvitchpak and Fort St. Michael. [In these names the letter *v* takes the sound of *w*, giving the pronunciation as Kwitchpak, and Koosequequim.]

Passing the peninsula of Alaska and entering upon the coast of Behring Sea, we find a considerable river, (the Kvitchpak,) entering into Bristol Bay. This stream, by a system of lakes, is said to connect with Cook Inlet.

Next in course comes the Kooskovim, a river of considerable magnitude, and of importance as affording navigation to the interior. There is considerable traffic in the region watered by this river, and the Russian-American Company have established several trading stations there.

We next come to the largest, most important, and queen of all the rivers west of the Rocky Mountains, the Kvitchpak. This magnificent stream, not inaptly called "*the Mississippi of the North*," enters Behring Sea between 64° and 65° north latitude, by several mouths, and on a parallel of 165° west longitude. It reaches far away in the interior and on the confines of the Arctic Circle, where the sun is visible all night. This great river is formed by the junction at Fort Yukon, a point not far distant from the British frontier, of the Porcupine River from the north-east, and the Yukon from the south-east. It is navigable for steamboats a distance of one thousand miles from the sea. This river had never been seen in its whole course by white men previous to the explorations for the construction of the Russian-American Telegraph. In fact these explorations, besides correcting sundry erroneous ideas, have determined a great geographical fact, which places the Kvitchpak at the head of all rivers on the north-west coast, and gives to Alaska the largest river north of 49°. It was at Nulato, on the bank of this river, that Col. Kennicott, the young, accomplished and enterprising naturalist, died in the spring of 1867, while prosecuting the survey for the Telegraph Company. Even after death he was still an explorer. From this remote outpost, his remains, after descending the unknown river in an Esquimaux boat of seal-skins, steered by the faithful companion of his labors, were transported by way of Panama to his home at Chicago, where he now lies buried.*

As we proceed through Behring Strait and enter the Arctic Ocean, we find Kotzebue Sound, which is fed by the Selawik, the Kowak, and the Inland rivers, on which is a considerable population. Here are found extensive deposits of animal remains, where fossil ivory may become, as in Siberia, an article of valuable commerce.

Further east there are many bays and sounds, and beyond Point Barrow the Colville River enters Garrison Bay. This river has its main course from the south toward the Arctic Ocean, which it enters about 151° west longitude. The natives report it navigable, and inhabited from a point not far from the northern bend of the Kvitchpak.

* Senator Sumner's speech.

ISLANDS.—Commencing at 54° 40' north latitude, on the Pacific, the mainland is masked by a succession of islands to the peninsula of Alaska, so that open boats or small river steamers can navigate safely between the islands and the mainland. Many of these islands are clothed with splendid timber, and the waters abound in fish. The coast of the mainland is densely timbered, which fact was one of the reasons that induced the location of the Telegraph to be made inland, and east of the mountains. The configuration of this region is remarkable. Including the Sitkan Archipelago at the south-east, our purchase takes a margin of the mainland, fronting the ocean, thirty miles broad and three hundred miles long, to Mount St. Elias, the highest peak on the continent, when it turns with an elbow to the west, and then along Behring Straits northerly, when it rounds to the east along the Frozen Ocean. Here are upward of four thousand statute miles of coast, indented by capacious bays and commodious harbors without number, embracing the peninsula of Alaska, on the south-west, one of the most remarkable in the world, fifty miles in breadth and three hundred miles in length; piled with mountains, many volcanic and some still smoking; penetrated by navigable rivers, one of which is among the largest in the world; studded with islands, which stand like sentinels on the coast, and flanked by that narrow Aleutian range which, starting from Alaska, stretches far away toward Japan, as if America were reaching a friendly hand to Asia. In the Aleutian range alone, beside innumerable islets, there are not less than fifty-five islands, each exceeding three miles in length; there are seven exceeding forty miles each, with Unimak, (which is the largest,) exceeding seventy-three miles. In our part of Behring Sea there are five considerable islands, the largest of which is St. Lawrence, being more than ninety-six miles long. Add to all these the group south of the peninsula of Alaska, including the Cheumagins and the magnificent island of Kodiak, and then the Sitkan group, being archipelago added to archipelago, and the whole together constituting a geographical complement to the West Indies, so that the north-west of the continent answers archipelago for archipelago to the south-east.*

From 54° 40' to Mount St. Elias, there are a succession of islands, back of which the coast to the boundary line is but the slope of a mountain range. The islands have not been explored; and even the interior of Sitka is unknown to the inhabitants of New Archangel, which is at the head of a small sound on the island, and is the principal station of the Russian Governor. The islands are mountainous, and the general character of the shore is steep and rocky. Very little is known of the country back from the shore. The Russians have ascended Copper River some distance, and established a post on the Kvitchpak, some four hundred miles from its mouth. But it was reserved for citizens of the United States to first navigate this river for a distance of one thousand miles, and to establish, beyond doubt or cavil, the fact that the Yukon flows into the Kvitchpak.

* Senator Sumner.

FACE OF THE COUNTRY.—A high and broken range of mountains, known as the North-west Coast Range, extends from the southern boundary along the coast to the extremity of the peninsula of Alaska. The main ridge of this mountain chain, from twenty to fifty miles from the coast, and nearly parallel to it, constitutes the boundary between the territory of Alaska and British Columbia south of latitude 60° . Numerous high spurs from this range extend to the water, dividing the coast into a great number of islands, promontories, and headlands, separated by deep and irregular straits and inlets. Among the most peculiar features of the coast are the long, narrow bays, stretching far inland, and which appear to fill the valleys of a half-submerged mountain system. These bays are surrounded by lofty summits, and are similar to those which, on the coast of Norway, take the name of fiords. The culminating peak of the Coast Range is Mount St. Elias, the highest mountain in North America.

CLIMATE.—The climate of this region is not what might at first seem to belong to its high latitude. The eastern coast of North America is much colder than the western. Observations of the course of the ocean currents of the Pacific readily explains this difference. It will be seen that the heated water of the equator flows in a continual current toward the north, and that this northern current comes quite near to the coast from the parallel of 50° to 58° of north latitude, warming the whole coast of Mount St. Elias, and then curving along to the peninsula of Alaska and the Aleutian Islands. The temperature of the Aleutian Islands and the coast of 54° $40'$ is very much the same in winter; and for the month of January is about 32° , which is much higher than that of the same latitude in the interior. The January isothermal line of the Aleutian Islands runs through Sitka, Philadelphia, Amsterdam, and Pekin. On the continent, above the Aleutian Islands, the January isothermal runs nearly parallel with the parallel of latitude, as the coast there is not warmed by the ocean currents. In summer, we find quite a change in the climate of Sitka and of the Aleutian Islands; the islands being cooled by cold winds from the north, and by masses of ice which float down Behring Strait, while Sitka is protected from those winds, and is not reached by the masses of ice. The July isothermal of Sitka passes near Quebec. That of the Aleutian Islands runs near the mouth of the Kvitchpak, through North Labrador, Iceland, and Northern Norway. The average temperature of the Aleutian Islands is about 50° Fahrenheit, nearly the same as that of Albany, Dublin, and Jeddo. A table, compiled from the archives of the Smithsonian Institute, shows that the winters of Sitka are relatively warm, not differing much from those of Washington, and several degrees warmer than those of New York. The mean temperature of winter is 32° $30'$, while that of summer is 53° $37'$. The Washington winter is 38° $57'$, the summer 73° $07'$. These points exhibit the peculiarities of this coast—warm winters and cool summers.

The prevailing dampness at Sitka, though it does not appear to be injurious to health, renders a residence there far from agreeable. Haggland is also damp. At Sitka the annual fall of rain is eighty-nine

inches. The mean annual fall in all England is forty inches, though in the mountainous districts of Cumberland and Westmoreland, the fall amounts to ninety. In Washington it is forty-one inches. In 1828, there were twenty days in which it snowed or rained continuously; one hundred and twenty when it rained or snowed part of the day, and only sixty-six days of clear weather. At Norton Sound and on the Kvitchpak River, winter may be said to commence at the end of September, although the weather is not severe until the end of October. The first snow falls about the 20th or 25th of September. The small ponds and lakes were frozen early in October, and the Kvitchpak was frozen solid by the 25th. On the 1st of November the harbor at St. Michael's was still open, but on the morning of the 4th it was frozen solid enough for sledges to cross on the ice. Spring opens on the Kvitchpak about the 1st of May, when the birds return and vegetation begins to appear. The ice did not entirely disappear from the river till after the 20th of May. The sea-ice continued in the bay of St. Michael's as late as 1st of June, and parties traveling on the Kvitchpak in June complained sometimes of the heat.

VEGETABLE PRODUCTIONS.—These depend upon climate, and are determined by its laws. From what has been said of the climate, therefore, we are prepared for the conclusion, that although the region we are considering is not a newly-revealed Paradise, as some enthusiasts would persuade us to believe, so neither is it an entire Arctic waste, as represented by others. We submit a few facts, derived from the most authentic sources available, from which the reader will draw his own conclusions. The Telegraph explorers report that the whole region north of Alaska peninsula, as far as Fort Yukon, at the confluence of the Yukon and Porcupine Rivers, in latitude 67° north, is heavily wooded. Above that point the trees gradually diminish in size until only dwarf trees and shrubs are found on the borders of the Arctic Ocean. Along the sides of the mountains, and on the high tablelands in this extreme northern latitude, the only kinds of vegetation found are mosses, lichens, and the small fungous plants which find their nourishment in the snow. Grass grows along the coast as far north as 60° . Barley and oats, the only cereals that can be grown, are produced on the islands and in the valleys of the western coast south of 60° . The tables at New Archangel are plentifully supplied with table-roots and esculents grown in the country; and there is little doubt that the entire southern half of the territory can be made to yield a considerable quantity of bread products. At Fort Yukon potatoes are raised; and all reports by explorers speak of the great quantities of currants, blackberries, raspberries, strawberries, and mulberries, which are to be found in the Aleutian Islands from Alaska down to $54^{\circ} 40'$. The want of sunlight prevents the successful cultivation of such vegetables as we would expect from the average temperature. On Kodiak Island barley and potatoes are raised. On Sitka, though warmer, they can raise no more, and the potatoes are small; though on some of the islands near Sitka very large potatoes are raised. The Indians on Queen Charlotte Island, were accustomed, after the supply

of furs had been exhausted there, to raise potatoes to exchange for furs with the Indians on the mainland. The natives evince very little desire for the fruits of the earth, and generally pay little attention to their cultivation. In the early days of the Russian-American Company they had a station at Ross, on the then Mexican coast, where they raised wheat, etc., for their posts in the north. For some ten years, till 1846, they received their supplies from the Hudson Bay Company at Vancouver, some of which were raised by the latter on their own lands. They now procure them from San Francisco. The forests and undergrowth at Sitka indicate a rich soil, capable of supporting even luxuriant vegetation. The principal forest trees are pine, larch, and cedar. At New Archangel the forest still runs down to the settlement, and the woods have never felt the stroke of the axe. Lisiansky, speaking on this subject, says: "The woods will yield a handsome revenue when the Russian commerce with China shall be established."

These forests will soon, if not immediately, be very valuable; for before the acquisition of this territory, there was no supply of pine timber within the possessions of the United States on the Pacific coast. The timber of this new acquisition is better and more accessible than at any other point on our Pacific coast.

MINERAL PRODUCTIONS.—Notwithstanding the frequent reports to that effect, it is not entirely certain that iron has been found in that region. Doroschin, the Russian engineer, reported its existence near Sitka; but nothing appears to have been done to verify his report. A visitor there, last year, saw excellent iron, reported to be from a bed in the neighborhood, which was said to be inexhaustible, and with abundant wood for its reduction. Specimens have also been collected on Kotzebue's Sound. Kotzebue himself attributes a false return in his calculations to the disturbing influence of iron upon his instrument.

Silver has also been reported at Sitka by the same Russian engineer, and, like the iron, in "sufficient quantities to justify the working."

Lead was reported by the Russian explorer, Lieutenant Zagoyskin, on the lower part of the Kvitchpak; but to what extent is not known.

Copper is found on the banks of Copper River, and of its affluent, the Tshitachitua, in masses as large as forty pounds. Traces of copper are also found in other places on the coast, and in the mountains near Yukon, where the natives use it for arrow-heads.

Coal seems to exist all along the coast, and traces of it are reported on the islands of the Sitkan Archipelago—which is probable, as it has been worked successfully on Vancouver's Island below. It is found on the Kenian and Alaska Peninsulas, and as far north as at Beaufort. The natives also report coal in the interior, on the Kvitchpak.

Gold, though less important than coal, has, nevertheless, its uses; nor is this remote region beyond its stimulating influences. Gold has been found, but not in any considerable quantities, nor reasonably accessible. The Russian engineer, Doroschin, reports gold in at least three several localities, each of considerable extent; namely, in the mountain range north of Cook's Inlet; near the Bay of Jakutat, not far from Mount

St. Elias; and in the mountains of the Kenay Peninsula, on the south side of Cook's Inlet.

Fish.—The waters abound in codfish, unsurpassed in variety, size, and delicacy. The natives subsist upon them. This interest will ere long prove, in this region, a formidable rival to Newfoundland. Fishing towns will soon spring into existence, furnishing to our Pacific coast a nursery for first-class seamen—precisely what is wanted for the growing commerce of that ocean.

Furs.—The fur-bearing animals are the sable, otter, furred seal, and the black, silver, and red foxes. Reindeer abound in the north, and red deer in the South. A large share of the fur-trade is in the hands of the British Hudson Bay Company; and Fort Yukon, in Alaska Territory, is one of their stations. Hitherto, furs have been the chief product of the country, and all the occupation of it that has been made is by the Russian-American Company, which was vested with the exclusive right to trade with the natives for furs. That company has some fifteen or twenty different trading-posts, of which New Archangel, Kodiak, St. Michael's, and Unalaska are the chief. In the early days of this company furs were obtained more easily than at present; but the supply has been abundant for the last twenty years. The following table shows the value of the various skins at New Archangel during the year 1866:

Sea otter.....	\$50 00	Black fox.....	\$50 00
Marten (American sable).....	4 00	Silver fox.....	40 00
Beaver.....	2 50	Cross fox.....	25 00
Bear.....	4 50	Red fox.....	2 00

The chief market for the furs is China, where they are exchanged for teas. The furs from Fort Yukon are packed across the continent to York Factory, on Hudson Bay, and thence sent to London. If these companies find profit in maintaining this traffic at such immense distance over land and by water, what may not be anticipated from American enterprise when steam navigation shall bring the Kvitchpak within ten days' sail from San Francisco? The monopolies that have heretofore controlled that trade must soon give place to such enterprise.

INHABITANTS.—The population of Alaska Territory is variously estimated at 61,000 to 72,375; but these estimates have no very reliable data. They consist mainly of the native Esquimaux, nomadic tribes, and Russians engaged chiefly in the fisheries. Colonel Kennicott, late chief of the Russian-American Telegraph Exploring Expedition, represents the natives as "a peaceable and wonderfully honest people, among whom theft is scarcely known;" and this estimate is corroborated by the employes of the Hudson's Bay Company. From 54° 40' to Mount St. Elias and neighboring islands live the Koloskian Indians, numbering some 20,000. They speak three or four different languages. The Kenaiian Indians are between Mount St. Elias and the Bay of Kenai, and speak a dialect of the Athabaskan language. Along the remaining part of the shore live the Esquimaux. These speak varieties of the same language. The Aleutians are also Esquimaux, but altogether distinct

from the Esquimaux of the coast. They inhabit the Aleutian Islands, and speak the language of Unalaska. Their food during summer consists of berries, fresh fish, and the flesh of amphibious animals; and during the winter they live on dried salmon, train-oil, and the spawn of fish. The women are cruelly treated, and do most of the work. Polygamy is practised, and the marriage relation slightly regarded.

GOVERNMENT.—The Russian settlements were long without any government other than the rule of might. The natives, who had enslaved each other, became themselves the slaves of these mercenary adventurers. The first trace of government was at the important Island of Kodiak, or Great Island, in 1790, where a Russian company was established under Delareff, a Greek, who "governed with the strictest justice, as well the natives as the Russians, and established a school, where the young natives were taught the Russian language, reading, and writing." The Russian-American Company was organized in 1799, under a charter from the Emperor Paul, with the power of administration throughout the whole region, including the coasts and the islands. This was a Russian counterpart of the English Hudson Bay Company. Its charter is now on the point of expiring. The *Almanach de Gotha*, for 1867 says, sententiously, that, "to the present time, Russian-America has been the property of a trading company."

The seat of government is the town of New Archangel, better known by its original name of Sitka, with a smooth and safe harbor. Its present population is about one thousand souls, which, in the spring season, when sailors leave for the sea, and trappers for the chase, is subject to be reduced to about five hundred. The whole region was divided into seven districts, all subject to the jurisdiction of the company. These districts, though primarily for purposes of the business of the company, have come to be regarded as so many distinct jurisdictions. Two of these districts are not included in the present cession; namely, the Kurile Islands, a group near the coast of Japan, and the Ross Settlement, in California, now abandoned.

The remaining five districts are: 1. The District of *Atcha*, with the bureau at this island. It embraces the two western groups of the Aleutians, known as the Andreanousky Islands and the Rat Islands. 2. The District of *Ounalaska*, with bureau at that island, and embracing the Fox Islands, the Peninsula of Alaska to and including the Shumagin Islands to the north of the peninsula. 3. The District of *Kodiak*, embracing the Peninsula of Alaska east of the Shumagin Islands, and the coast westward of Mount St. Elias, with the adjacent islands, including Kodiak, Cook's Inlet, and Prince William Sound; then along the coast of Bristol Bay and the country watered by the Nushagak and Kosokvim. 4. The *Northern* District, embracing the country of the Kvitchpak and Norton's Sound. 5. The District of *Sitka*, embracing the coast of Mount St. Elias, where the Kodiak District ends, southward to the latitude of 54° 40', with adjacent islands.

The central government of all these Districts is at Sitka, from which emanates all orders and instructions. Here, also, is the chief factory,

where the proceeds of trade are collected, and from whence supplies are forwarded.

In Russia the churches belong to the government; and this rule obtains in these districts, where there are four Greek churches and five Greek chapels. There is also a Protestant church at Sitka, and a public library that some years ago contained seventeen hundred volumes.

REASONS FOR THE PURCHASE.—The cession and acquisition of this vast territorial region was a transaction between two great political powers of the earth. Viewed in its mere business aspect, it may be tersely described as the sale by one party to the other of property in and jurisdiction over more than five hundred and seventy thousand square miles of country, and the payment, in consideration therefor, of the sum of seven millions two hundred thousand dollars. But there are other considerations connected with this transaction not measured by numerals or coin, and which impart to it a value beyond estimate, even though the lands prove valueless, and the consideration utterly fail. There is in this transaction a pledge of mutual friendship that is a phenomenon among nations—an expression of *entente cordiale* that throws into the shade all estimates of territorial aggrandizement or pecuniary consideration. Totally unlike in their internal structure and organism, these powers are not dissimilar in their recent experience. Each has recently been visited with the sanguinary scourge of nations; and each may well glory in deeds of emancipation unsurpassed in history since the deliverance of God's chosen people from Egyptian bondage. The Treaty opens with the appropriate declaration that "The United States of America and His Majesty the Emperor of all the Russias, being desirous of strengthening, if possible, the good understanding which exists between them," have appointed plenipotentiaries, who have proceeded to sign articles, etc. That "good understanding" has been happily preserved throughout all the intercourse between the Great Empire and the Great Republic during all their past history. *Eto perpetua!*

CONSTITUTION OF THE UNITED STATES.

WE, the people of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this CONSTITUTION for the United States of America.

ARTICLE I.

SECTION 1. All legislative powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

SEC. 2. The House of Representatives shall be composed of members chosen every second year by the people of the several States, and the electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State Legislature.

No person shall be a Representative who shall not have attained to the age of twenty-five years, and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State in which he shall be chosen.

Representatives and direct taxes shall be apportioned among the several States which may be included within this Union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of Representatives shall not exceed one for every thirty thousand, but each State shall have at least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to choose three, Massachusetts eight, Rhode Island and Providence Plantations one, Connecticut five, New York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

When vacancies happen in the representation from any State, the Executive authority thereof shall issue writs of election to fill such vacancies.

The House of Representatives shall choose their Speaker and other officers, and shall have the sole power of impeachment.

SEC. 3. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six years; and each Senator shall have one vote.

Immediately after they shall be assembled in consequence of the first election, they shall be divided as equally as may be into three classes. The seats of the Senators of the first class shall be vacated at the expiration of the second year, of the second class at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one-third may be chosen every second year; and if vacancies happen by resignation or otherwise, during the recess of the Legislature of any State, the Executive thereof may make temporary appointments until the next meeting of the Legislature, which shall then fill such vacancies.

No person shall be a Senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State for which he shall be chosen.

The Vice-President of the United States shall be President of the Senate, but shall have no vote, unless they be equally divided.

The Senate shall choose their other officers and also a President *pro tempore*, in the absence of the Vice-President, or when he shall exercise the office of President of the United States.

The Senate shall have the sole power to try all impeachments. When sitting for that purpose, they shall be on oath or affirmation. When the President of the United States is tried, the Chief-Justice shall preside; and no person shall be convicted without the concurrence of two-thirds of the members present.

Judgment in cases of impeachment shall not extend further than to removal from office, and disqualification to hold and enjoy any office of honor, trust, or profit under the United States: but the party convicted shall, nevertheless, be liable and subject to indictment, trial, judgment, and punishment, according to law.

SEC. 4. The times, places, and manner of holding elections for Senators and Representatives shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by law make or alter such regulations, except as to the places of choosing Senators.

The Congress shall assemble at least once in every year, and such meeting shall be on the first Monday in December, unless they shall by law appoint a different day.

SEC. 5. Each house shall be the judge of the elections, returns, and qualification of its own members, and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent members in such manner and under such penalties as each house may provide.

Each house may determine the rules of its proceedings, punish its members for disorderly behavior, and, with the concurrence of two-thirds, expel a member.

Each house shall keep a journal of its proceedings, and from time to

publish the same, excepting such parts as may in their judgment require secrecy; and the yeas and nays of the members of either house on any question shall, at the desire of one-fifth of those present, be entered on the journal.

Neither house, during the session of Congress, shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two houses shall be sitting.

SEC. 6. The Senators and Representatives shall receive a compensation for their services, to be ascertained by law, and paid out of the Treasury of the United States. They shall in all cases, except treason, felony, and breach of the peace, be privileged from arrest during their attendance at the session of their respective houses, and in going to and returning from the same; and for any speech or debate in either house, they shall not be questioned in any other place.

No Senator or Representative shall, during the time for which he was elected, be appointed to any civil office under the authority of the United States, which shall have been created, or the emoluments whereof shall have been increased during such time; and no person holding any office under the United States, shall be a member of either house during his continuance in office.

SEC. 7. All bills for raising revenue shall originate in the House of Representatives; but the Senate may propose or concur with amendments as on other bills.

Every bill which shall have passed the House of Representatives and Senate, shall, before it becomes a law, be presented to the President of the United States; if he approve, he shall sign it; but if not, he shall return it, with his objections, to that house, in which it shall have originated, who shall enter the objections at large on their journal, and pro and con to reconsider it. If after such reconsideration two-thirds of that house shall agree to pass the bill, it shall be sent, together with the objections, to the other house, by which it shall likewise be reconsidered, and if approved by two-thirds of that house, it shall become a law. But in all such cases the votes of both houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the journal of each house respectively. If any bill shall not be returned by the President within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law, in like manner as if he had signed it, unless the Congress by their adjournment prevent its return, in which case it shall not be a law.

Every order, resolution, or vote to which the concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and, before the same shall take effect, shall be approved by him, or being disapproved by him, shall be repassed by two-thirds of the Senate and House of Representatives, according to the rules and limitations prescribed in the case of a bill.

SEC. 8. The Congress shall have power—

To lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defense and general welfare of the United

States ; but all duties, imposts, and excises shall be uniform throughout the United States ;

To borrow money on the credit of the United States ;

To regulate commerce with foreign nations, and among the several States and with the Indian tribes ;

To establish an uniform rule of naturalization, and uniform laws on the subject of bankruptcies throughout the United States ;

To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures ;

To provide for the punishment of counterfeiting the securities and current coin of the United States ;

To establish post-offices and post-roads ;

To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries ;

To constitute tribunals inferior to the Supreme Court ; to define and punish piracies and felonies committed on the high seas, and offenses against the law of nations ;

To declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water ;

To raise and support armies, but no appropriation of money to that use shall be for a longer term than two years ;

To provide and maintain a navy ;

To make rules for the government and regulation of the land and naval forces ;

To provide for calling forth the militia to execute the laws of the Union, suppress insurrections, and repel invasions ;

To provide for organising, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States, reserving to the States, respectively, the appointment of the officers, and the authority of training the militia according to the discipline prescribed by Congress.

To exercise exclusive legislation in all cases whatsoever, over such district (not exceeding ten miles square) as may, by cession of particular States, and the acceptance of Congress, become the seat of the Government of the United States, and to exercise like authority over all places purchased by the consent of the Legislature of the State in which the same shall be, for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings ; and

To make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers vested by this Constitution in the Government of the United States, or in any department or officer thereof.

SEC. 9. The migration or importation of such persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the year one thousand eight hundred and eight, but a tax or duty may be imposed on such importation, not exceeding ten dollars for each person.

The privilege of the writ of *habeas corpus* shall not be suspended,

unless when, in cases of rebellion or invasion, the public safety may require it.

No bill of attainder or *ex post facto* law shall be passed.

No capitation or other direct tax shall be laid, unless in proportion to the *census* or enumeration hereinbefore directed to be taken.

No tax or duty shall be laid on articles exported from any State. No preference shall be given, by any regulation of commerce or revenue, to the ports of one State over those of another; nor shall vessels bound to or from one State, be obliged to enter, clear, or pay duties in another.

No money shall be drawn from the treasury but in consequence of appropriations made by law, and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.

No title of nobility shall be granted by the United States, and no person holding any office of profit or trust under them shall, without the consent of the Congress, accept of any present, emolument, office, or title, of any kind whatever, from any king, prince, or foreign state.

SEC. 10. No State shall enter into any treaty, alliance, or confederation; grant letters of marque and reprisal; coin money; emit bills of credit; make any thing but gold and silver coin a tender in payment of debts; pass any bill of attainder, *ex post facto* law, or law impairing the obligation of contracts, or grant any title of nobility.

No State shall, without the consent of the Congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws; and the net produce of all duties and imposts, laid by any State on imports or exports, shall be for the use of the treasury of the United States, and all such laws shall be subject to the revision and control of the Congress. No State shall, without the consent of Congress, lay any duty of tonnage, keep troops or ships of war in time of peace, enter into any agreement or compact with another State, or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ARTICLE II.

SEC. 1. The executive power shall be vested in a President of the United States of America. He shall hold his office during the term of four years, and, together with the Vice-President, chosen for the same term, be elected as follows:

Each State shall appoint, in such manner as the Legislature thereof may direct, a number of electors, equal to the whole number of Senators and Representatives to which the State may be entitled in the Congress; but no Senator or Representative, or person holding an office of trust or profit under the United States, shall be appointed an elector.

The electors shall meet in their respective States, and vote by ballot for two persons, of whom one shall not be an inhabitant of the same State with themselves. And they shall make a list of all the persons

voted for, and of the number of votes for each; which list they shall sign and certify, and transmit sealed to the seat of Government of the United States, directed to the President of the Senate. The President of the Senate shall, in presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted. The person having the greatest number of votes shall be the President, if such number be a majority of the whole number of electors appointed; and if there be more than one who have such majority, and have an equal number of votes, then the House of Representatives shall immediately choose by ballot one of them for President; and if no person have a majority, then from the five highest on the list the said House shall in like manner choose the President. But in choosing the President, the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. In every case, after the choice of the President, the person having the greatest number of votes of the electors shall be the Vice-President. But if there should remain two or more who have equal votes, the Senate shall choose from them by ballot the Vice-President.

The Congress may determine the time of choosing the electors, and the day on which they shall give their votes, which day shall be the same throughout the United States.

No person except a natural born citizen, or a citizen of the United States at the time of the adoption of this Constitution, shall be eligible to the office of President; neither shall any person be eligible to that office who shall not have attained to the age of thirty-five years, and been fourteen years a resident within the United States.

In case of the removal of the President from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the Vice-President, and the Congress may by law provide for the case of removal, death, resignation, or inability both of the President and Vice-President, declaring what officer shall then act as President, and such officer shall act accordingly, until the disability be removed or a President shall be elected.

The President shall, at stated times, receive for his services a compensation, which shall not be increased nor diminished during the period for which he shall have been elected, and he shall not receive, within that period, any other emolument from the United States or any of them.

Before he enter on the execution of his office, he shall take the following oath or affirmation:

"I do solemnly swear (or affirm) that I will faithfully execute the office of President of the United States, and will, to the best of my ability, preserve, protect, and defend the Constitution of the United States."

SEC. 2. The President shall be commander-in-chief of the army and navy of the United States and of the militia of the several States, when called into the actual service of the United States; he may

require the opinion, in writing, of the principal officer in each of the executive departments, upon any subject relating to the duties of their respective offices; and he shall have power to grant reprieves and pardons for offenses against the United States, except in cases of impeachment.

He shall have power, by and with the advice and consent of the Senate, to make treaties, provided two-thirds of the Senators present concur; and he shall nominate, and by and with the advice and consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the Supreme Court, and all other officers of the United States, whose appointments are not herein otherwise provided for, and which shall be established by law. But the Congress may by law vest the appointment of such inferior officers, as they think proper, in the President alone, in the courts of law, or in the heads of departments.

The President shall have power to fill up all vacancies that may happen during the recess of the Senate, by granting commissions which shall expire at the end of their next session.

SEC. 3. He shall, from time to time, give to the Congress information of the state of the Union, and recommend to their consideration such measures as he shall judge necessary and expedient; he may, on extraordinary occasions, convene both houses, or either of them, and in case of disagreement between them, with respect to the time of adjournment, he may adjourn them to such time as he shall think proper; he shall receive Ambassadors and other public Ministers; he shall take care that the laws be faithfully executed, and shall commission all the officers of the United States.

SEC. 4. The President, Vice-President, and all civil officers of the United States shall be removed from office on impeachment for and conviction of treason, bribery, or other high crimes and misdemeanors.

ARTICLE III.

SEC. 1. The judicial power of the United States shall be vested in one Supreme Court, and in such inferior courts as the Congress may from time to time ordain and establish. The Judges both of the Supreme and inferior courts shall hold their offices during good behavior; and shall, at stated times, receive for their services a compensation, which shall not be diminished during their continuance in office.

SEC. 2. The judicial power shall extend to all cases, in law and equity, arising under this Constitution, the laws of the United States, and treaties made, or which shall be made under their authority; to all cases of admiralty and maritime jurisdiction to controversies to which the United States shall be a party; to controversies between two or more States; between a State and citizens of another State; between citizens of different States; between citizens of the same State, claiming lands under grants of different States, and between a State or the citizens of different States thereof, and foreign States, citizens, or subjects.

In all cases affecting Ambassadors, other public Ministers and Consuls, and those in which a State shall be party, the Supreme Court shall have original jurisdiction. In all the other cases before mentioned, the Supreme Court shall have appellate jurisdiction, both as to law and fact, with such exceptions and under such regulations as the Congress shall make.

The trial of all crimes, except in cases of impeachment, shall be by jury; and such trials shall be held in the State where the said crimes shall have been committed; but when not committed within any State, the trial shall be at such place or places as the Congress may by law have directed.

SEC. 3. Treason against the United States shall consist only in levying war against them, or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, and on confession in open Court.

The Congress shall have power to declare the punishment of treason; but no attainder of treason shall work corruption of blood, or forfeiture, except during the life of the person attainted.

ARTICLE IV.

SEC. 1. Full faith and credit shall be given in each State to the public acts, records, and judicial proceedings of every other State. And the Congress may, by general laws, prescribe the manner in which such acts, records, and proceedings shall be proved, and the effect thereof.

SEC. 2. The citizens of each State shall be entitled to all privileges and immunities of citizens in the several States.

A person charged in any State with treason, felony, or other crime, who shall flee from justice, and be found in another State, shall, on demand of the executive authority of the State from which he fled, be delivered up to be removed to the State having jurisdiction of the crime.

No person held to service or labor in one State, under the laws thereof, escaping into another, shall, in consequence of any law or regulation therein, be discharged from such service or labor; but shall be delivered up on claim of the party to whom such service or labor may be due.

SEC. 3. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the jurisdiction of any other State; nor any State be formed by the junction of two or more States, or parts of States, without the consent of the Legislatures of the States concerned, as well as of the Congress.

The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this Constitution shall be so construed as to prejudice any claims of the United States, or of any particular State.

SEC. 4. The United States shall guarantee to every State in this Union a republican form of government, and shall protect each of them

against invasion; and on application of the Legislature or of the Executive (when the Legislature can not be convened) against domestic violence.

ARTICLE V.

The Congress, whenever two-thirds of both houses shall deem it necessary, shall propose amendments to this Constitution, or, on the application of the Legislatures of two-thirds of the several States, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes, as part of this Constitution, when ratified by the Legislatures of three-fourths of the several States, or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the Congress: *Provided*, That no amendment which may be made prior to the year one thousand eight hundred and eight, shall in any manner affect the first and fourth clauses in the ninth section of the first article; and that no State, without its consent, shall be deprived of its equal suffrage in the Senate.

ARTICLE VI.

All debts contracted and engagements entered into before the adoption of this Constitution, shall be as valid against the United States under this Constitution as under the Confederation.

This Constitution, and the Laws of the United States which shall be made in pursuance thereof, and all Treaties made or which shall be made under the authority of the United States, shall be the Supreme Law of the Land: and the Judges in every State shall be bound thereby, any thing in the Constitution or Laws of any State to the contrary notwithstanding.

The Senators and Representatives before mentioned, and the members of the several State Legislatures, and all Executive and Judicial officers, both of the United States and of the several States, shall be bound by oath or affirmation, to support this Constitution: but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ARTICLE VII.

The ratification of the Conventions of nine States shall be sufficient for the establishment of this Constitution between the States so ratifying the same.

DONE in Convention, by the unanimous consent of the States present, the seventeenth day of September, in the year of our Lord one thousand seven hundred and eighty-seven, and of the Independence of the United States of America the twelfth. In witness whereof, we have hereunto subscribed our names.

GEORGE WASHINGTON, PRESIDENT,
and Deputy from Virginia.

NEW HAMPSHIRE—John Langdon, Nicholas Gilman.

MASSACHUSETTS—Nathaniel Gorham, Rufus King.

CONNECTICUT—Wm. Samuel Johnson, Roger Sherman.

NEW YORK—Alexander Hamilton.

NEW JERSEY—William Livingston, David Brearley, William Patterson, Jonathan Dayton.

PENNSYLVANIA—Benjamin Franklin, Thomas Mifflin, Robert Morris, George Clymer, Thomas Fitzsimmons, Jared Ingersoll, James Wilson, Gouverneur Morris.

DELAWARE—George Read, Gunning Bedford, Jr., John Dickinson, Richard Bassett, Jacob Broom.

MARYLAND—James McHenry, Daniel of St. Thomas Jenifer, Daniel Carroll.

VIRGINIA—John Blair, James Madison, Jr.

NORTH CAROLINA—William Blount, Richard Dobbs Spaight, Hugh Williamson.

SOUTH CAROLINA—J. Rutledge, C. Cotesworth Pinckney, Charles Pinckney, Pierce Butler.

GEORGIA—William Few, Abraham Baldwin.

Attest,

WILLIAM JACKSON, *Secretary*.

RATIFICATION OF THE CONSTITUTION BY THE SEVERAL STATES.

THE Constitution was adopted on the 17th of September, 1787, by the Convention appointed in pursuance of the resolution of the Congress of Confederation, on the 21st of February, 1787, and was ratified by the Conventions of the several States, as follows :

Convention of Delaware.....	December 7, 1787
“ Pennsylvania.....	“ 12, “
“ New Jersey.....	“ 18, “
“ Georgia.....	January 2, 1788
“ Connecticut.....	“ 9, “
“ Massachusetts.....	February 6, “
“ Maryland.....	April 28, “
“ South Carolina.....	May 22, “
“ New Hampshire.....	June 21, “
“ Virginia.....	“ 26, “
“ New York.....	July 26, “
“ North Carolina.....	Nov. 21, 1789
“ Rhode Island.....	May 19, 1790

AMENDMENTS TO THE CONSTITUTION.

ARTICLE I.

CONGRESS shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

ARTICLE II.

A well-regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed.

ARTICLE III.

No soldier shall, in time of peace, be quartered in any house without the consent of the owner, nor in time of war but in a manner to be prescribed by law.

ARTICLE IV.

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V.

No person shall be held to answer for a capital or otherwise infamous crime, unless on a presentment or indictment of a grand jury, except in cases arising in the land or naval forces, or in the militia when in actual service in time of war or public danger; nor shall any person be subject for the same offense, to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property without due process of law; nor shall private property be taken for public use without just compensation.

ARTICLE VI.

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have

been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.

ARTICLE VII.

In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury shall be otherwise re-examined in any Court of the United States than according to the rules of the common law.

ARTICLE VIII.

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

ARTICLE IX.

The enumeration in the Constitution of certain rights, shall not be construed to deny or disparage others retained by the people.

ARTICLE X.

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

ARTICLE XI.

The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by citizens of another State, or by citizens or subjects of any foreign State.

ARTICLE XII.

The Electors shall meet in their respective States and vote, by ballot, for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same State with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President, and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit, sealed, to the seat of Government of the United States, directed to the President of the Senate; the President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted; the person having the greatest number of votes for President shall be the President, if such number be a majority of the whole number of Electors appointed, and if no person have such majority, then from the persons having the highest numbers not exceed-

ing three, on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President; but in choosing the President, the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President. The person having the greatest number of votes as Vice-President shall be the Vice-President, if such number be a majority of the whole number of electors appointed; and if no person have a majority, then from the two highest numbers on the list the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators; and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

ARTICLE XIII.

SEC. 1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

SEC. 2. Congress shall have power to enforce this article by appropriate legislation.

RATIFICATION OF THE AMENDMENTS.

The first ten of the preceding amendments were proposed at the first session of the first Congress, or on the 25th of September, 1789, and were finally ratified by the constitutional number of States, on the 15th of December, 1789. The eleventh amendment was proposed at the first session of the third Congress, or on March 5, 1794, and was declared in a message from the President to both houses of Congress, dated January 8, 1798, to have been adopted by the constitutional number of States. The twelfth amendment was proposed at the first session of the eighth Congress, or on December 12, 1803, and was adopted by the constitutional number of States in 1804, according to a public notice thereof by the Secretary of State, dated September 25, 1804. The thirteenth amendment was proposed at the second session of the thirty-eighth Congress, or on the first day of February, 1865, and was adopted by the requisite number (three-fourths) of the States in the same year, according to a public announcement thereof by the Secretary of State, made December 18, 1865.

THE PENDING AMENDMENT.

The following is the text of the amendment to the Constitution proposed at the first session of the thirty-ninth Congress, or on June 13, 1866, and already (March, 1867) adopted by a large number of States, but not yet officially announced as having received the sanction of the number requisite to make it a part of the Constitution :

JOINT RESOLUTION PROPOSING AN AMENDMENT TO THE CONSTITUTION
OF THE UNITED STATES.

Be it enacted by the Senate and House of Representatives of the United States in Congress assembled (two-thirds of both Houses concurring), That the following article be proposed to the Legislatures of the several States as an amendment to the Constitution of the United States, which, when ratified by three-fourths of said Legislatures, shall be valid as part of the Constitution, namely :

ARTICLE XIV.

SEC. 1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States, and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.

SEC. 2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the executive and judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age and citizens of the United States, or in any way abridged, except for participation in rebellion or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

SEC. 3. No person shall be a Senator or Representative in Congress, or elector of President and Vice-President, or hold any office, civil or military, under the United States or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State Legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid and comfort to the enemies thereof.

But Congress may, by a vote of two-thirds of each house, remove such disability.

SEC. 4. The validity of the public debt of the United States authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection and rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations, or claims shall be illegal and void.

SEC. 5. The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

➤ Whole number of pages, including cuts, 795.

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